An assessment instrument for fear in middle childhood South African children.

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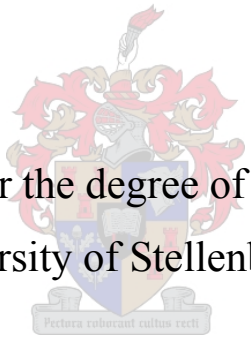

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DECLARATION

I, the undersigned, hereby declare that the work contained in this dissertation is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

Signature…….

Date……...

ABSTRACT

Fears are a normal part of development but excessive fears may interfere with daily functioning and may reflect serious anxiety problems. In order to determine whether fears are excessive or not, as well as to implement prevention programmes, an assessment instrument is needed that is socially and scientifically relevant to the context in which the child lives. Furthermore, normative data is necessary in order to understand the concept of fear.

The primary aim of the study was to develop a measuring instrument that is scientifically and socially relevant within the South African context. This entailed a qualitative stage where semi-structured interviews were conducted with 40 middle childhood children attending four local primary schools in the Stellenbosch area. These interviews were transcribed and analysed for emerging themes. The emerging themes were then added to the existing Fear Survey Schedule for Children-Revised (FSSC-R).

Reliability analyses were conducted on the data obtained by the adapted FSSC-R. Item-total correlations and exploration of the item construct resulted in 23 items being deleted. The remaining items on the scale demonstrated good internal consistency (α = 0,97). The factor structure of the remaining items was explored by means of principal factor analysis with varimax rotation. Various factor solutions were explored and the five-factor solution was found to be the best conceptual fit for the data. The five factors are: Factor I-Fear of Danger and Death, Factor II-Fear of the Unknown, Factor III-Worries, Factor IV-Fear of Animals, Factor V-Situational Fears. The adapted scale is a South African version of Ollendick's FSSC-R and is referred to as the FSSC-SA.

The secondary aim was to determine the content, number, level and pattern of fear of a selected group of middle childhood South African children, living in the Western Cape, based on the results of the South African Fear Survey Schedule for Children (FSSC-SA). This entailed a quantitative stage. The adapted FSSC-R was completed by 646 middle childhood children between the ages of 7 and 12 years, attending four primary schools in the Stellenbosch area in the Western Cape Province. The participants were also requested to complete a biographical questionnaire before they completed the adapted FSSC-R.

Culture was defined with respect to the main representative cultural communities in the

Stellenbosch area, namely black, coloured and white.

The results of the South African fear instrument indicate that the most feared item for the South African children is ‘getting HIV’. The ten most common fears indicate that fears are to a certain extent universal but that some fears also reflect the context in which a child lives. Furthermore the added items also featured among the most fear eliciting items suggest that these items reflect the societal concerns, issues and fears of South African children. Black South African children displayed the highest number as well as level of fear, followed by the coloured South African children and then the white South African children. This was also applicable to the pattern of fear. Gender differences are apparent with respect to number, level and pattern of fears with girls consistently expressing more fears than boys. This applies to all cultural groups.

In conclusion, implications of the present study’s results in the South African context as well as shortcomings and recommendations for future studies are discussed.

OPSOMMING

Vrese is ‘n normale deel van ontwikkeling, maar oordrewe vrese kan daaglikse funksionering belemmer en kan op ernstige angsversteurings dui. Om vas te stel of vrese oordrewe is of nie en om voorkomende intervensies ten uitvoer te kan bring, is ‘n assesseringsinstrument nodig wat sosiaal en wetenskaplik van toepassing is op die konteks waarin die kind leef. Normatiewe data is ook nodig vir ‘n beter begrip van die vreeskonsep.

Die primêre doel van die studie was om ‘n meetinstrument te ontwikkel wat sosiaal en wetenskaplik van toepassing sou wees op die Suid-Afrikaanse konteks. Dit het ‘n kwalitatiewe komponent behels wat beteken dat semi-gestruktueerde onderhoude gevoer is met 40 kinders in hulle middelkinderjare aan vier plaaslike laerskole in Stellenbosch-omgewing. Hierdie onderhoude is getranskribeer en geanaliseer om voorspruitende temas te bepaal. Hierna is dié temas bygevoeg tot die bestaande ‘Fear Survey Schedule for Children-Revised (FSSC-R)’.

Betroubaarheidsanalises is uitgevoer op die data wat deur die aangepaste FSSC-R ingewin is. Itemtotaalkorrelasies en verkenning van die itemkonstruk het daartoe gelei dat 23 items van die skaal verwyder is. Die oorblywende items het goeie interne konsekwentheid ($\alpha = 0,97$) getoon. Die faktorstruktuur van die oorblywende items is ondersoek deur middel van hooffaktoranalise met varimax-rotasie. Verskeie faktoroplossings is ondersoek en die vyffaktor oplossing is as die mees toepaslike vir die data bevind. Die vyf faktore is: Faktor I-Vrees vir Gevare en die Dood, Faktor II- Vrees vir die Onbekende, Faktor III-Bekommernisse, Faktor IV-Vrees vir Diere en Faktor V-Omstandigheidsvrese. Die aangepaste skaal is ‘n Suid-Afrikaanse weergawe van Ollendick se FSCC-R en dit word die FSSC-SA genoem.

Die sekondêre doel van die studie was om op grond van die Suid-Afrikaanse FSSC-R (FSSC-SA) se resultate die inhoud, aantal, vlak en patroon van uitgesproke vrese van ‘n kultureel-diverse groep kinders in hulle middelkinderjare in die Stellenbosch-omgewing van die Weskaap te bepaal. Dit het ‘n kwantitatiewe komponent behels. Die aangepaste FSSC-R is ingevul deur 646 kinders in hulle middelkinderjare tussen die ouderdomme van 7 en 12, aan vier laerskole in die Stellenbosch-omgewing. Die deelnemers is versoek om eers ‘n biografiese vraelys in te vul voor hulle met die aangepaste FSSC-R begin het.

Kultuur is gedefinieer volgens die belangrikste verteenwoordigende kultuurgemeenskappe in die Stellenbosch-gebied, naamlik swart, kleurling en wit.

Wat die resultate van die Suid-Afrikaanse meetinstrument betref is die mees gevreesde item die vrees om MIV te kry. Die tien algemeenste vrese toon aan dat vrese in ‘n mate universeel is, maar dat sommige vrese ook die konteks weerspieël waarin die kind leef. Die bygevoede items het verder onder die items getel wat die meeste vrese uitlok, wat daarop dui dat hierdie items ‘n weerspieëling is van die sosiale kommer, probleme en vrese van Suid-Afrikaanse kinders. Swart Suid-Afrikaanse kinders het die meeste vrese sowel as die hoogste vreesvlakke getoon, gevolg deur die bruin kinders en dan die wit kinders. Hierdie volgorde was ook van toepassing op die vreespartone. Geslagsverskille het geblyk ten opsigte van die aantal, vlak en patroon van vrese, met meisies wat konsekwent meer vrese as seuns vermeld het. Dit was op al die kulturele groepe van toepassing.

Ten slotte word die implikasies bespreek van die onderhawige studie se bevindinge ten opsigte van die Suid-Afrikaanse konteks sowel as tekortkomings aangedui en aanbevelings vir toekomstige navorsing.

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CHAPTER 1

INTRODUCTION, MOTIVATION FOR AND AIMS OF THE STUDY

Chapter 1 comprises of an introduction to fear research during middle childhood, a motivation regarding the present study and a statement of the research problem as well as aims of the present study. Lastly the organisation of the dissertation is outlined chapter by chapter.

1.1 Introduction

A child's world seems full of dangers, whether these are real or imaginary. Most of the fears are transient and normal, however, research has shown that anxiety disorders are amongst the most common childhood psychiatric disorders.

Normal fear can be defined as a normal reaction to a real or imagined threat and is considered to be an integral as well as adaptive aspect of development (King, Hamilton & Ollendick, 1988; Morris & Kratochwill, 1983). As such, it can be seen as a common part of the human condition. In order to ascertain what is normal and adaptive and what is problematic, the degree of distress, impairment of functioning and/or interference of daily life needs to be assessed. Knowledge concerning fears at each developmental stage is vital when attempting to ascertain whether or not a fear is problematic (Dadds, Seinen, Roth & Harnett, 2000). Therefore it is not surprising that much research has been done to try to determine what are developmentally appropriate fears. This obtained normative data aids in the process of identification of problematic behaviour and intervention. Intervention alone, however, is not the preferred choice but rather prevention.

Children's developmental experiences and their increasing cognitive abilities, lead to changes in the fear content, as time proceeds (Dadds et al., 2000). Research has shown that the focus generally shifts with age from concerning concrete, external things during early childhood to internalised abstract fears at a later stage (Koplewicz, 1996).

The terms 'phobia', 'anxiety' and 'fear' are often used interchangeably by the person on the street but for the clinician they have different meanings. A phobia goes beyond the level of normal fears, which may be appropriate as well as adaptive. Anxiety can be seen as a more

generalised symptom with a wider influence over a child's personality and daily functioning. Lastly, fear is associated with situation-specific events (Murdoch James, Reynolds & Dunbar, 1994).

Description of normative changes in the self-reported fears of children over time serve as several important functions for clinicians as well as investigators of the correlates and determinants of anxiety disorder. Research has shown that self-reported fear scores positively correlate with disruption and avoidance of daily activities (McCathie & Spence, 1991; Ollendick & King, 1994) as well as with levels of anxiety and depression (Dong, Yang & Ollendick, 1994; Ollendick, Yule & Ollier, 1991).

Retrospective studies of simple and social phobias have shown that the debilitating levels of fear first develop during childhood and adolescence (Öst, 1985, 1987; Sheehan, Sheehan & Minichello, 1981). Children who demonstrate unusually high levels of fearfulness tend to judge themselves as less able to have control over events in their environments (Ollendick, 1983) as well as having higher current (Muris, Merckelbach, Mayer & Prins, 2000a) and future probability (Muris, Merckelbach, Gadet & Moulaert, 2000b) of meeting the diagnostic criteria for anxiety disorders. The clinician can benefit from appropriate normative data which can facilitate the timely identification of high levels of general fearfulness and of clusters of specific fears in individuals (Last, Francis & Strauss, 1989; Muris & Steerneman, 2001), as well as changes, in fear levels, that occur during the course of treatment.

The most commonly used method for assessing fear is through the administration of self-report fear surveys (Gullone, 2000). In order to assess fearfulness reliable and valid self-report measures need to be available. The most widely used schedule has been Ollendick's (1983) revision of Scherer and Nakamura's (1968) Fear Survey Schedule for Children (FSSC), the Fear Survey Schedule for Children-Revised (FSSC-R). However, the FSSC-R's content has remained unchanged (Gullone & King, 1992) since the original scale was developed (Scherer & Nakamura, 1968). This has lead to questions regarding the FSSC-R's current utility (Ramirez & Kratochwill, 1990). Furthermore difficulties have been experienced with wording, the length of questionnaire and socially appropriate items.

Within the South African context, in the past it has happened that childhood fear was explored by means of assessment instruments that have been developed overseas. These instruments,

not having been adapted to the South African context, influenced the accuracy of the results (Burkhardt, 2002). Thus the present study is based on developing a fear assessment instrument that is scientifically relevant to South Africa. This will contribute to the existing research regarding South African middle childhood children's fears data and as such will contribute to a better understanding of children's fears. In addition, prevention, as well as intervention programmes will benefit.

Although South African middle childhood children grow up in the post-apartheid era they, are faced with a number of difficulties. This context includes violence, multilingual challenges, hardships in terms of poverty and HIV/AIDS as well as a multicultural society. It is important to determine how this context influences the content, number, level and pattern of fears. This provides motivation for the second aim of the study (Prins & Van Niekerk, 2001).

This study therefore aims to develop an assessment instrument that is both scientifically and socially relevant to the South African context. This will aid understanding regarding content, number, level and pattern of fears of South African middle childhood children and will provide an assessment instrument that will aid prevention programmes.

1.2 Motivation for the study

Research into normative fears spans over a century and interest has continued at a constant pace with over 100 works having been published (Gullone, 2000). One of the rationale's driving this extensive research has been to determine developmental patterns, frequency, intensity, content and duration of these phenomena against which pathological fears and phobias can be identified (Gullone & King, 1993; Gullone 1996, 2000). As such it is of paramount importance to strive for further understanding of this phenomena.

Normative data regarding fears of children during middle childhood, a period during which cognitive, social, emotional and self-concept development are important milestones (Louw, van Ede & Ferns, 1998; Newman & Newman, 1997), may aid in the understanding of emotional development and the promotion of mental health. Furthermore it may assist with the early identification of children whose fears are persistent. The above-mentioned is important since the onset of many adult psychological problems can be traced back to childhood, especially with regard to anxiety disorders (Shore & Rapport, 1998). The need for

effective preventative programmes is thus of utmost importance. Early prevention could result in cost savings in mental health services. Benefits include improved quality of life, reduced suffering for many children (Spence, 1994) as well as the reduction of negative long-term consequences, such as, the disruption to relationships, schooling and vocational development (Dadds et al., 2000). In addition, recent studies have highlighted the possibility that anxiety disorders in childhood and early adolescence might be effectively prevented as well as treated by addressing them with a range of early intervention programmes (Dadds et al., 2000). In order to develop and implement intervention programmes, it is imperative to obtain the most up-to date findings on which to base these programmes.

In South Africa, as in many developing countries, education has increasingly been seen as a priority. This has resulted in the rise in demands for efficient and valid instruments for identifying children at risk for disorders that interfere with optimal scholastic achievement (Meyer, Eilertsen, Sundet, Tshifularo & Sagvolden, 2004). Furthermore, South African children have often, in the past, been one of the most neglected and disadvantaged sectors (Makan, 1996; National Institute for Economic Policy in Duncan and Van Niekerk, 2001).

In addition, problems experienced in previous research (Burkhardt, Loxton & Muris, 2002; Burkhardt, 2003) such as the questioning of the cognitive parameters that are tapped into, difficulty in understanding American concepts and the length of the questionnaires, indicate the need for an assessment instrument which is applicable to the South African context.

Burkhardt (2002, 2003) and Gullone (2000) have placed strong emphasis on the development of emic (measures developed within the culture) assessment tools as opposed to etic (measures developed in one culture and translated for the use in a different culture) assessment tools. As such, the present study will provide more accurate data regarding the fears of middle childhood South African children and as such will aid the development of more effective intervention programmes.

During his acceptance speech for the Nobel Peace Prize on the 10 December 1993 former President of South Africa Nelson Mandela stated that children were the most vulnerable citizens in any society and one of societies' greatest treasures (Mandela, 1993). This seems to reinforce the growing realisation that the foundations of adult health and psychological well-being are laid during childhood and adolescence. Furthermore, the fact that children are a

future of the country, presenting an investment worthy of time, money and patience is highlighted.

The above-mentioned has been further reinforced by a number of statements and developments. The principle of first call for children which has been adopted since April 1991 in South Africa has been one of them (Dawes, Robertson, Duncan, Ensink, Jackson, Reynolds, Pillay & Richter, 1997). Furthermore, in September 1990, The World Summit For Children adopted a declaration of intent as well as a plan of action to foster the survival, protection and development of children was adopted. The Rights of the Child, as formulated at the 1989 United Nations Convention, were also re-affirmed and endorsed. World leaders showed their commitment to pursuing these goals by agreeing to be guided by the principle of 'first call for children'. This meant that in the allocation of resources, the highest priority would be given to satisfying the essential needs of children at all times and all levels (Unicef, 1993). This first call for children was re-iterated by former President Nelson Mandela during his opening speech at the first session of South Africa's first democratically elected Parliament (Rock, 1997). The importance of children's well-being is highlighted by the above-mentioned statements and further strengthens the aims of the present study.

The African National Congress's Reconstruction and Development Programme supported and emphasized the Convention on the Rights of the Child (1994). Specific emphasis is placed on the protection of children's lives, the promotion of full development of children's potential and creating awareness among children of their rights, needs and opportunities. Furthermore, it was stated that children's needs should be of paramount importance throughout all programmes.

In addition, the White Paper for Social Welfare showed that the government is committed to the South African children by giving their needs the highest priority as well as acknowledgement of social, religious and cultural diversity. The crucial role of prevention in children's welfare was emphasised (Government Gazette, 1997). The social relevance of the study is supported by the above-mentioned.

The importance of mental health has come to the fore, especially through recent global activities and publications, focusing on readdressing the mental health neglect, which have mainly been driven by the world health organisation (WHO) (Freeman; 2004). South Africa

has also renewed its commitment to improving mental health and mental health services (South African Hansard, 2001). The present study is in line with the above-mentioned commitment aiding the effectiveness of mental health services.

Richter (1994) states that any research impacting on health, welfare and education policy in South Africa will be making important contributions. The aim of such research should be to aid in the creations of conditions in childhood which are essential to human development.

Prevention programmes, mental health well-being, difficulties experienced with previous research and the emphasis on children, all serve as motivation to the present study and as such, the aims stem from the mentioned needs.

1.3 Research problems and aims of the study

As far as the researcher can ascertain there is no instrument available that assesses children's contemporary fears within the South African context.

The primary aim of the study is:

- to develop a measuring instrument that is scientifically and socially relevant to the South African context. This entails the development of a fear instrument that will assist in assessing the manifestation of fear and thereby contribute to a better understanding of the expression of fears by children during middle childhood.

The secondary aim of the study is:

- to determine the content, number, level and pattern of fear of a selected group of middle childhood South African children, living in the Western Cape, based on the results of the South African fear instrument.

1.4 Organisation of the dissertation

Chapter 1 comprises of the introduction to the dissertation. The motivation for the research is stated, which is based on the social and scientific relevance for the South African context. The

broad aims of the research with respect to the primary and secondary foci are outlined. An overview and the organisation of the dissertation is provided.

Chapter 2 entails the defining of key concepts and terms. This includes concepts such as the middle childhood South African child, fear, the fear survey schedule for children-revised (FSSC-R), culture and gender. The dependent variables namely; content, number, level and pattern of fear, are also described.

Chapter 3 provides the literature review on research findings relating to fears and the measuring of fears especially with regard to the FSSC-R.

The theoretical framework for the study is outlined in **chapter 4.** The systems theory provides an extensive description of the context in which development takes place. It offers a meta-theoretical framework for contextualising the middle childhood child's world as well as the experience of fears. Other relevant theories such as the psychodynamic perspective, the psychosocial theory, the social learning theory and cognitive developmental perspective are also included and discussed in this broad perspective.

In **chapter 5** the methodology used to obtain and analyse the data for the research is outlined and discussed. The measures, namely the biographical questionnaire, semi-structured interviews and the FSSC-R are discussed.

Chapter 6 entails the reporting of the results. Firstly the qualitative results are indicated and the process of adapting the present FSSC-R is discussed. Next, the South African FSSC-R with respect to reliability and validity are outlined. Lastly the results of the South African FSSC-R relating to content, number, level and pattern of fear are presented.

The discussion of the results follows in **chapter 7**.

In **chapter 8** the findings are summarised and recommendations, a critical overview of the study as well as the reflection on the value of the study are discussed.

1.5 Chapter summary

Four aspects of the dissertation are discussed in **chapter 1.** These entailed the introduction of fear research in middle childhood, the motivation for the present study, the statement of the research problem and an outline of the organisation of the dissertation.

Key terms and concepts pertaining to expressed fears and research instruments are addressed in **chapter 2**.

CHAPTER 2

DEFINING KEY TERMS AND CONCEPTS

This chapter explores the central concepts concerning middle childhood fear, Fear Survey Schedule for Children-Revised (FSSC-R), culture, gender and the South African context are explored. Furthermore the four dependent variables, namely; content, number, level and pattern of fear, are explained.

2.1 Defining middle childhood

Middle childhood is known as the period from about the ages of 6 to 12. This is a period of relative calm concerning physical development, but is an important era for cognitive, social, emotional and self-concept development (Louw et al., 1998). In the present study, it will refer to children within the age group of 8 to 13 years. Two subgroups can be distinguished in the literature, one from the age of 8 to 10 and the other from 11 to 13 (Burnham & Gullone, 1997; Dong et al., 1994; King, Ollier, Iacuone, Schuster, Bays, Gullone & Ollendick, 1989; Ollendick, Yang, King, Dong & Akande, 1996; Shore & Rapport, 1998). Initially these two subgroups should also have been applicable to the present study, but the researcher decided against this, since the present study commenced it seemed more comprehensive and time consuming than the researcher originally anticipated.

2.2 Fear

Childhood fear can be defined as normal strong emotional reactions to actual or perceived dangers which fade when the threatening object is removed. They are made up of psychological expressions (i.e. discomfort, distress and terror), physiological changes (i.e. heart palpitations, rapid breathing and profuse sweating) and behavioural expressions (i.e. avoidance, escape and tentative approach) (Derevensky, 1979; Fonseca, Yule & Erol, 1994; Graziano, De Giovanni & Garcia, 1979). Fear is considered to be an integral part as well as an adaptive aspect of development (King et al., 1988; Morris & Kratochwill, 1983). Gullone and King argue that the expression of fear is an individualistic one and is influenced by many factors including past experiences, situational stimuli, temperament and physical as well as cognitive development. Fear is a common experience throughout the course of development.

It has been documented to have an adaptive function (King et al., 1988; Gullone, 1996, 2000).

Terms which are often used interchangeably to describe anxiety in children are fear, anxiety and phobia. The common denominator to the definition of these terms are avoidance behaviours, autonomic nervous system reactions and the subjective feeling of nervousness as well as distress (Francis & Ollendick, 1987).

Anxiety can be defined as a dysphonic or diffuse feeling similar to fear but seemingly arises without a discernable threat and often has a more vague source (Barrios & O'Dell, 1989; Reed, Carter & Miller, 1992; Sarafino, 1986). Anxiety is seen by some as merely a manifestation of the pattern of reactions experienced by fear (Barrios & O'Dell 1989; Izard, 1991). The above-mentioned definition of fear and anxiety are supported by the definition of the Psychological Dictionary (Plug, Louw, Gouws & Meyer, 1997).

A phobia can be defined as a special form of fear that is disproportional to the degree of threat posed by the feared stimulus (Francis & Ollendick, 1987). Phobia is defined by Miller, Barrett and Hampe (1974) as anxiety which is attached to a specific non-threatening stimulus, being out of proportion to situational demands, that cannot be reasoned away, is out of voluntary control, leads to avoidance of the phobic stimulus, is persistent over time, is maladaptive and is not age-specific.

The terms 'fear' and 'anxiety' are often used interchangeably, because they both show a complex pattern of psychological, physiological and behavioural reactions or expressions to a real or imagined threat and since in practice it is often difficult to distinguish between the two (Barrios & O'Dell, 1989; Rachman, 1977; Reed et al., 1992; Sarafino, 1986). For the purpose of the present study the terms were used interchangeably. During the semi-structured interviews, questions centered around what children were most scared or afraid of in their lives. This demonstrates the complexity of the terminology.

2.3 Fear Survey Schedule for Children (FSSC)

The Fear Survey Schedule for Children (FSSC) is one of the oldest and most widely used behavioural self-report measure of fears of objects and situations. This instrument was developed by Scherer and Nakamura (1968) in an attempt to develop a fear scale for children

in which the items are grouped into sub-scales by means of factor analysis (Scherer & Nakamura, 1968). It provides the child with a list of potentially fear-eliciting objects and events. These include items such as crawling insects, failure, receiving an injection, crowds and enclosed spaces. The respondent is then asked to indicate the degree of fear.

In 1983 this instrument was revised by Ollendick. It still remained an 80-item self-report measure, but the answer options were shortened from a 5-point scale to a 3-point scale: none (1), some (2), a lot (3). The scale has proven psychometric properties namely; internal consistency, test-retest reliability and construct validity (Gullone & King, 1992; Ollendick, Matson & Helsel, 1985a, Ollendick, King & Frary, 1989). A 5-factor structure was derived from factor analysis. These factors are the fear of failure and criticism (e.g. 'looking foolish'), fear of the unknown (e.g. 'going to bed in the dark'), fear of minor injury and small animals (e.g. 'snakes') , fear of danger and death (e.g. 'being hit by a car or truck') and medical fears (e.g. 'getting an injection from the nurse or doctor') (Ollendick, 1983).

Studies have demonstrated that the above-mentioned factor structure can be generalised across children and adolescents in the United States (Ollendick, 1983), Australia (Ollendick et al., 1989), and England (Ollendick et al., 1991). Support for the validity of the FSSC-R comes from studies demonstrating that the FSSC-R correlates substantially with other child and adolescent measures such as the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978) and the trait version of the State-Trait Anxiety Inventory for Children (STAIC; Spiegelberger, 1973); (see Ollendick, 1983; Ollendick et al., 1991).

The FSSC-R is aimed at identifying fears in normal as well as differentiating among the anxiety disorders in children (Ollendick et al., 1989), taking into account developmental and cognitive limitations of young children of age 8 to 16 (Ollendick, 1983). It can also be used to measure efficacy of a treatment. However, it seems to be less useful in diagnostic purposes where it is required to differentiate among various anxiety disorder subtypes (Muris, Merckelbach, Mayer & Meesters, 1998a). Furthermore it is a unidimensional instrument (Muris, Merckelbach, Schmidt & Mayer, 1999). However, with respect to differentiating amongst specific types of phobias the FSSC-R has been found to be useful (Weems, Silverman, Saavedra, Pina &White- Limpkin, 1999).

Generally it can be said that the FSSC-R appears to be a valid measure of childhood fears

with sound psychometric properties.

The concept of reliability and validity also needs to be defined since reference is made to these terms with respect to the FSSC-R. Synonyms for reliability include consistency, stability, replicability and repeatability. Reliability entails the measurement of a specific attribute in a systematic and repeatable way. A reliability coefficient provides estimate of the proportion of the observed score variance that is 'true' variance rather than 'error' variance. Test-retest reliability is concerned with stability and is an assessment of the degree to which test scores are similar or stable over time versus the degree to which scores change or fluctuate during repeated testing (Walsh & Betz, 2001). Validity refers to the extent that the specific test is measuring what it set out to do, and therefore very important for assessment instruments. The concept of validity is also concerned with the theoretical and applied usefulness of a test. The usefulness of tests is determined by the ability to make inferences about people/children based on the test results (Walsh & Betz, 2001).

2.4 Culture

A great deal has been written about culture as well as cultural theory and it still seems an elusive concept. The International Dictionary of Psychology (Sutherland, 1989) defines culture as: 'The beliefs, customs, an artefacts that the members of a society tend to have in common, and that they pass on to one another (p. 103)'. This definition is further supported by the Psychological Dictionary (Plug et al., 1997).

In addition, Helman (1994) defines culture as:

> A set of guidelines (both explicit and implicit), which individuals inherit as members of a particular society, and which tells them how to view the world, how to experience it emotionally, and how to behave in it in relation to other people, to supernatural forces or gods, and to the natural environment. It also provides them with a way of transmitting these guidelines to the next generation- by the use of symbols, language, art and ritual.
>
> (Helman, 1994, p.2-3)

The implication of the above mentioned seems that culture cannot be static since the

interpretation of rules within a given culture can vary due to changing, moving or differing circumstances arising over time. Culture entails adapting to a specific environment, understanding rules of the specific environment and the manner in which these rules are enacted, experiences and transmitted (Swartz, 1998).

Hofstede's (1980) household definition of culture is 'the collective programming of the mind which distinguishes the members of one group or category of people from another' (Hofstede, 1980, pp 260). Furthermore he says that culture is a vague concept and often there are two meanings which are confused. These are the same as previously mentioned a) the concept of civilisation and its products and b) broad patterns of thinking, feeling and acting which goes beyond civilisation as such. Thus definition of culture according to Hofstede (1980) relates more closely to the latter explanation.

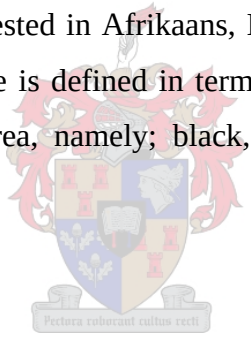
Slee and Cross (1989) state that children's fears reflect something of their understanding of the world and their place in it. This emphasises the context in which the child's lives and this context is influenced by variables such as ethnicity and culture. It is important to realise that South Africa is a society marked by the richness of various cultures and that this may have an influence on the results being obtained.

The terms 'community' and 'culture' are often used by psychologists as euphemisms for terms such as 'race' and 'ethnicity' in South Africa. The latter terms were at one stage abandoned in order to avoid their provocative connotations and substituted with 'community' and 'culture' (Seedat, Duncan & Lazarus, (2001). Since many of the apartheid laws were aimed at preventing blacks from competing with whites in matters such as sports and employment opportunities, severe disparities with respect socio-economic status, linguistic preferences and conditions of living resulted. As such cultural differences among race groups in South Africa are manifested in a wide range of customs such as food, language and music preferences as well as social practices (Finchilescu, 2005). In line with the above-mentioned the present study makes use of the term 'culture'. The use of the term 'culture' also allows for comparisons to a previous study by Burkhardt (2002) where the same terminology was utilised.

For the purpose of this study culture can be referred to as a social reality and can be seen as a group of people who have shared patterns of beliefs, feelings, knowledge and share the same

context or environment in which behaviours develop and can be expressed (Yamamoto, Silva, Ferrari & Nukariya, 1997). Language can be seen as the key to the world of culture; it consists of a pattern of symbols, which allows people to communicate with one another (Macionis, 2003). According to Allott (1999) 'Language is the biological link between culture and non-cultural aspects of human evolution both in its role in the development of the brain and cognition and in its continuing role, as part of brain organisation and function, as the instrument for the preservation and transmission of culture from generation to generation' (Allott, 1999, pp77). The above-mentioned highlights the relation between culture and language. Culture can be seen as being transmitted through language, where culture and language develop together in the brain. Language patterns, usage and pronunciation are thus culturally linked. This is further supported by Painter and Baldwin (2004) who have tried to illustrate that race and language are not unrelated by exploring language and racism in a South African school.

In the present study children were tested in Afrikaans, English or Xhosa depending on their home language. Furthermore, culture is defined in terms of the main representative cultural communities in the Stellenbosch area, namely; black, coloured and white South African children[1].



2.5 Gender

The randomly selected sample of the present study did not represent gender equally.

2.6 The South African context

In the post-apartheid era there are better opportunities for all children, irrespective of gender, race, culture and religion. The South African child grows up in a country with a first-world constitution that is however, still struggling with a reputation of ongoing cultural violence as a result due to the political and socio-economic inequalities of the past.

Severe disparities are apparent as a result of the apartheid policy. These remain to have a

[1] The use of the terms 'black, coloured', and 'white' participants could be viewed as controversial. These terms are used not to denote race, but rather to acknowledge differences that continue to exist as a consequence of South Africa's racialised past. Furthermore these terms will be used descriptively and in the above-mentioned context.

negative impact on the capacity of some families to provide the most basic needs for their children. Inequalities as a result of deprivation, violence, poor health and inferior education have arisen between children of different race groups and socio-economic areas (Biersteker & Robinson, 2000). The children who grew up during the 1990's have not directly experienced apartheid while their parents, as well as older members of the community have. The apartheid system promoted violence towards non-white communities and this may have caused feelings of insecurity in the children of these communities and in its wake-fear and anxiety (Rudenberg, Jansen & Frijdjohn, 1998; Pillay, Naidoo & Lockhat, 1999). This may have been perpetuated through the generations by the socialisation process.

The effect of globalisation also needs to be acknowledged. Globalisation is the process whereby social life within the South African society is increasingly influenced by international trends. These influences range from political and trade ties to shared music, clothing styles as well as mass media. Globalisation brings society into direct contact with economic events such as unstable stock markets, wars, famine, earthquakes, ethnic cleansing and genocide. This results in the sense of security being eroded by increasing stress and anxiety, as society is confronted with its own vulnerability in the face of global instability (Prins & Van Niekerk, 2001). Parents might be influenced by this anxiety and thus the world that the child lives in changes and becomes more hostile.

Furthermore, the South African child is growing up under conditions of violence, which constitutes a developmental risk. The rates of violence in South Africa are amongst the highest in the world (Dawes & Donald, 1994).

The present study was conducted in Stellenbosch, a town situated in the Western Cape. This is one of the nine provinces in South Africa. In the Western Cape the language preferences includes three of the eleven official languages namely; Afrikaans, English and Xhosa.

2.7 Dependent variables

The content of fear was determined by the ten most common fears expressed by the selected group of children according to the extended FSSC-R. The terms 'type' and 'content' will also be used interchangeably during this study.

The number of fears refers to the number of items endorsed ‘a lot’ on the extended FSSC-R. The terms ‘number’ and ‘frequency’ will be used interchangeably during this study.

The level of fear was determined by the sum of the responses to the 80 items on the extended FSSC-R. For the purpose of this study, the level of fear will be indicated by the children’s responses to the various stimuli on a 3 point scale (none = 1, some = 2 and a lot = 3). The terms ‘level’ and ‘intensity’ will be used interchangeably in this study.

The pattern of fear is derived from the factor scale scores, this being the sum of the responses of the items contained on each of the following five factors, which are: fear of failure and criticism, fear of the unknown, fear of minor injury and small animals, fear of danger and death as well as medical fears. The pattern of fear is also often referred to as the factor structure.

2.8 Chapter summary

Key concepts and terms concerning middle childhood, fear, anxiety and phobia, FSSC-R, culture, gender, the South African context, and the dependant variables, were defined in this chapter. Their importance to the understanding of the present study were highlighted.

In the next chapter, the literature review on research findings regarding fears and the FSSC-R are discussed.

CHAPTER 3

A REVIEW OF THE RELEVANT PSYCHOLOGICAL LITERATURE: FEAR PROFILES DURING MIDDLE CHILDHOOD AND THE FSSC-R

This chapter provides an overview of the relevant literature starting with fear as a construct with reference to content, number and level of fears, pattern of fears, stability of fears, developmental changes of fears, seriousness of fears, origins of fears and special populations. Research regarding the independent variables: age, gender, culture and socio-economic status (SES) are reviewed. The latter two variables bear no significance in the present study. An overview of assessment tools is provided, and lastly the FSSC-R is reviewed.

3.1 Fear as a construct

During middle childhood there is development of greater emotional maturity which entails acquired emotional flexibility and greater emotional differentiation. The ability to identify, attach emotional labels such as anger, fear, sadness and happiness to their inner feelings as well as to understand complex emotions arises (Louw et al., 1998; Santrock, 2004; Turner & Helms, 1995). Emotion and as such, fear can be seen as a three-part drama according to Williams and Stith (1980). The subjective feeling that is only known to the individual arises first. This is followed by physiological changes such as a dry mouth and a flushed face. Lastly, the behaviour that others label and interpret is apparent.

According to developmental psychology, the emotion of fear is experienced by people of all ages primarily due to its survival value (Louw et al., 1998). Fear plays an integral part in development and as such has attracted an enormous amount of research (Gullone, 1996). Research regarding normative fears of children and adolescents spans over one century and has contributed to the understanding of children's emotional development enormously (Burnham & Gullone, 1997; Gullone 2000). Furthermore, it provides a reference point against which pathological fear or phobia can be identified (Gullone & King, 1993; Gullone, 1996, 2000).

Children have fear reactions to stimuli pertaining to strangers, separation, loud noises, darkness, water, imaginary creatures and small animals such as snakes and spiders, in

addition, to other circumscribed or specific events and or objects. Fears experienced during middle childhood are seen as a natural phenomenon which is quite common and construct changes predictably with development, especially cognitive and ego strength. They tend to be mild, age-specific and transitory (Ollendick, King & Muris, 2002). Various studies based on fears in children and adolescents have documented the above-mentioned (Bauer, 1976; Elbedour, Shulman & Kedem, 1997; Graziano et al., 1979; King et al., 1988; King, Ollendick & Tonge, 1997b; Marks, 1987; Maurer, 1965; Ollendick et al., 1985a, 2002; Slee & Cross, 1989). Campbell (1986) also argues that social development plays a role in the development of the expression of fears.

Developmental theorists stipulate that children experience similar patterns of fears within each developmental stage from infancy to adolescence, but the types of fear differ from one stage to the next (Bouldin & Pratt, 1998). As maturation takes place, the structure of fear changes as well, from formless and imaginary to specific and realistic. Children develop more elaborate systems of verbal symbols with which to understand their reality and also to identify their particular sources of fear. As such the role of language sophistication and social expectations also have an effect on the actual fears reported (Bauer, 1976).

Nearly all the fear dimensions such as content, number, level and pattern, change with development, provide momentum for avoiding danger and are dependent on the age of the child without necessarily causing great distress to the child (Ollendick, 1983). Fear aids the development of certain types of behaviour which are beneficial to stress-relating circumstances (King et al., 1988). Thus fears often do not involve intense or persistent reactions, are short-lived and mostly, partly adaptive (Ollendick et al., 2002). Certain fears can however become excessive, maladaptive and persistent, causing considerable distress to the child (Muris, Merckelbach & Collaris, 1997a).

Research has shown that persistent fears can lead to or are associated with other unpleasant emotions such as depression and anxiety (King, Gullone & Ollendick, 1992; Ollendick & Yule, 1990) as well as lower self-concepts (Ollendick, 1983). In a study by Ollendick and King (1994) 60% of the children indicated that the fear which they experienced results in ‘a lot’ of distress. The researchers cautioned however, that in order to obtain a clear picture, the connection between fears and other anxiety disorders as well as phobias needs to be further examined.

In a study by Westenberg, Drewes, Goedhart, Siebelink and Treffers (2004) it was concluded that the natural presence of fears during adolescence appears to constitute a vulnerability for developing a social anxiety disorder. Furthermore, anxiety disorders are found to be amongst the most common psychiatric disorders experienced by children and adolescents (Bernstein, Borchardt & Perwien, 1996).

Fears as well as their expressions are determined to a certain extent on age, social class, culture and even a particular moment in history. Thus, what children fear is influenced by social, historic moments and individual experiences (Burkhardt 2002; Mellon, Koliados & Paraskevopoulos, 2004). Fears are partially innately determined, but the fact that children fear what they are taught to fear should also be kept in mind (Graziano et al., 1979). To conclude, one can say that the expression of fear is an individualistic one which is also influenced by past experience, situational stimuli, temperament and physical as well as cognitive development (Gullone & King, 1992).

Adults need to realise that the children's fears reflect something of their understanding of the world as well as their place in it. This was shown in an Australian study by Slee and Cross (1989), where the fear of nuclear war was expressed by 67,40 % of the participants. As children grow older, their emotional fears are replaced with social concerns, as in this case nuclear war and its consequences.

As previously mentioned, history also effects the expression of fears and as such the generalization of results. Historic events such as the terrorist attacks on September 11, 2001 are bound to have an effect on the expression of fears. Prevalence rates of mental disorders were evaluated after September 11 and were found to be 1.5-3 times higher than before the event. Exposure risk factors also play a role. This together with the fact of increased concern about security, terrorism and potential warfare in the media may influence the expression of fears tremendously (Schaefer, Watkins & Burnham, 2003). Furthermore, the continuing war in Iraq and the effect this has had on the economy, especially with regard to the rise in oil prices needs to be acknowledged. Parents may experience an existential fear, which might, through negative information, be transferred onto children. Some exposure risk factors in the South African context include exposure to violence and poverty.

Numerous studies over the past century concerning fears and their evolution have contributed to the body of knowledge of fears, making it well documented (King et al., 1988; Marks, 1987). The research focus of these studies has either been one of the following or a combination of them: fear content (the most-fear eliciting items), the prevalence of fears (the number of items an individual reports as eliciting the maximal level of fear), as well as the intensity (the sum of fear ratings on all the items); which differ depending upon age, gender, mental disorder, cognitive ability, culture, socio-economic status and other demographic characteristics (Burnham & Gullone, 1997; Gullone, 2000; Gullone, King & Cummins, 1996; Weems et al., 1999). Cross-cultural comparisons have been reported for the items rated as most fear-eliciting on average, as well as for the factor analytic structure of fears (Mellon et al., 2004).

The body of work consists of normative data, the bulk of which has mainly been gathered in English-speaking countries. During recent years more studies have attempted to explore the pattern of incidence and development of fears in different cultures. Previous studies have linked the definition of culture to aspects such as race and language. Such studies aid in the better understanding of and contribute to a more comprehensive body of knowledge regarding childhood fears. This enables the development of more effective prevention as well as treatment.

An example of such a study, lending itself to better understanding of childhood fears is a study by Neal, Lilly and Zakis (1993) who administered the FSSC-R to 233 children between the ages of 6 and 12 in north eastern Ohio, North America. Results indicated that of the 11 most common fears for African American children, eight were the same as the fears for white children. This suggests that the most common fears are similar and transcend race and culture. This is further supported by the study by Mellon et al. (2004). The researchers found that upon comparison to previous results, Hellenic children were frightened by many of the same things. Consistent with previous studies, Hellenic boys as well as older children reported more fears of aversive social events.

3.1.1 Fear content

The identification of the most common fears has been a major area of focus in fear research, with consistently finding that they are death and danger related (King et al., 1989; Ollendick,

1983). The ten most common fears reported by middle childhood American children in an early study by Scherer and Nakamura (1968) were: being sent to the principal, failing a test, getting poor grades, being hit by a car or truck, getting burnt-fire, bombing attacks-being invaded, germs or getting a serious illness, not being able to breathe, death or dead people and having my parents argue. These fears mainly fall under the death and danger subscale. The ten most common fears reported by the boys were the following: bombing attacks-being invaded, falling from high places, getting punished by my father, being sent to the principal, a burglar breaking into my house, being hit by a car or truck, germs or getting a serious illness, not being able to breathe, earthquakes and death or dead people. Seven of the boys' fears coincided with the girls' fears. The three unmatched items for the boys were: getting punished by my father, germs or getting a serious illness and death or dead people. The three unmatched items for the girls were: snakes, getting lost in a strange place and fire-getting burnt. Consistent with the finding of the overall most common fears, the most common fears for the boys and girls loaded onto the death and danger category.

The content of fears measured by the FSSC-R have been remarkably consistent across age, gender and culture. Adults have consistently ranked aversive social events such as disapproval, rejection and failure as most frightening (Kliegler & Franklin, 1993; Mellon, 2000). In contrast, children rate sources of bodily harm such as fire, being hit by a car or truck and suffocation as most frightening (Dong et al., 1994; King et al., 1989; Neal et al., 1993; Ollendick et al., 1991; Ollendick et al., 1996).

The ten most common fears during middle childhood according to various recent studies where the FSSC-R was administered were: not being able to breathe, being hit by a car or truck, bombing attack, getting burnt by fire, falling from a high place, burglar breaking into the house, earthquake, death, illness and snakes (Ollendick et al., 1989, 1991; Ollendick, & King, 1994). The majority of these fears loaded onto the danger and death subscale. The dominance of death and danger-related stimuli among the most common fears has been reported to remain fairly stable over time by longitudinal studies (Gullone & King; 1997; Spence & McCathie, 1993) and provides support to the suggestion that we are biologically prepared to fear certain stimuli (Marks, 1987; Seligman, 1971).

In contrast to the above-mentioned is a study by Muris and Ollendick (2002) where a modified version of the FSSC-R, The FSSC Hawaii (FSSC-HI) was administered. The ten

most common fears reported by adolescences upon comparison revealed that eight of the top ten FSSC-HI fears were ‘new’ items such as ‘AIDS’, ‘being killed or murdered’, ‘family member dying’, ‘being raped’, ‘nuclear war’, ‘being kidnapped’, and ‘myself dying’. This highlights the significance of adding contemporary, potentially threatening stimuli and situations to childhood fear measures. Although this study relied solely of self-reported fears of 12-19 year old adolescents it should be mentioned that no significant differences between children and adolescents have been found in previous studies on the psychometric properties of childhood fear measures (Gullone & King, 1992; Ollendick et al., 1991; Shore & Rapport, 1998).

A Greek-language version of the FSSC-R was administered to Hellenic children aged 7-12 years in order to assess the content, prevalence, intensity and factor structure. The ten most common fears included being hit by a car, bombing attacks-being invaded, not being able to breathe, getting a shock from electricity, fire-getting burnt, falling from high places, a burglar breaking into our house, having my parents argue, germs/getting a serious illness and failing a test (Mellon et al., 2004).

Exceptions to the most commonly reported fears can provide invaluable information regarding local character and cultural idiosyncrasies in the content of fear (Mellon et al., 2004). The self-reported fear of burglars was unusually high among Australian, Hellenic and a variety of American groups. Furthermore Chinese, Nigerian, and African-Americans as well as Hellenic children strongly feared a shock from electricity. Mellon et al. (2004) reports that the recent years have witnessed a substantial and well-publicised increase in housebreaking and that in Greece it is not common to ’child-proof’ electric sockets, thus parents rely on threats and reactive interventions to protect children from accidental shock.

The above-mentioned seems to provide insight to the context in which the results are found as well as highlights the importance of the respective context when interpreting results. This could prove to be of particular relevance to the present study, since South African children grow up in a country which faces many challenges such as multi-lingualism, poverty, violence and a struggling health system.

3.1.2 Number and level of fears

This section reviews literature with regard to age differences in the number and level of fears.

It is imperative to motivate the decision to mention the number (i.e. the number of items endorsed a lot) and level of fears (i.e. the sum of the responses of the total number of items) under one category. The relevant literature with respect to number and level is reported at the same time, since the number and level of fears are directly correlated and in past research these categories have often been linked together. An example thereof is research by Gullone (2000).

In addition, research results of an early observational study provided an indication of fear intensity, reporting a tendency of the fear level to decrease with age (Jerslid & Holmes, 1935a).

Result from studies involving American, Australian and Chinese children, indicate that with an increase in age, there is a general decline in the number and intensity of fears (Angelino, Dollins & Mech, 1956; Burnham & Gullone, 1997; Dong, Xia, Lin, Yang & Ollendick, 1995; Gullone, & King, 1992, 1997; King et al., 1989; Lapouse & Monk, 1959; Slee & Cross, 1989; Spence & McCathie, 1993). Ollendick et al. (1985a) divided the participants into four age groups namely; 7 to 9, 10 to12, 13 to15 and 16 to 18. Here the results of the FSSC-R indicate a linear decline in the number of fears, according to the results on the FSSC-R, with an increase of age. The 7 to 9 year olds expressed an average of 14,24 fears, the 10 to12-year-olds 13,64 fears, the 13 to 15- year-olds 12,08 fears and the 16 to 18-year-olds 11,55 fears. However, this shown decline is not necessarily always a linear one (Graziano et al., 1979).

Research done on Chinese children by Dong et al. (1994) contradicted the above-mentioned. Their sample was divided into three age groups namely; 7 to 10, 11 to 13 and 14 to 17. Results indicated that the level of fear as well as number of fears increased from the age of 11 to 13. This finding was found to only be relevant to the Chinese children. It was noted that the Chinese child-rearing practices and educational goals placed greater emphasis on the opinions of others than is common amongst American and Australian cultures. Socio-evaluative fears increased for the respective age group since educational pressures to achieve were at their peak for the mentioned age range.

Cross-cultural research has also shown that the course of fear expression is not universal. In a study by Ollendick et al. (1996) the fears of 7- to 17-year old American, Australian, Chinese and Nigerian were explored. The results indicated that Nigerian boys and girls reported similar number and level of fears. The rest of the sample displayed the trend that girls expressed more fears. The 11- to 13-year old Chinese children reported a higher number and level of fear than the 7- to 10-year olds and 14- to 17-year olds. The American and Australian childrens' fears decreased linearly across age, whereas the Nigerian children reported similar number and levels of fear regardless of their ages.

The Bedouin Israeli children indicated the highest level of fear among the 8-year-olds. After this the fear level declined with the exception of the 10-year-olds, where an increase from the 9- year-olds to 10-year-olds was revealed. The lowest level of fear expressed was for the 9-year-olds. The Jewish Israeli children supported this finding by also demonstrating the highest level of fear among the 8-year-olds and 9-year-olds. An exception to linear decline was revealed with the 11-year-olds displaying a higher level of fear than the 10-year -olds. The 10-year-olds and 12-year-olds experienced the lowest level of fear. Possible explanations for the earlier decline in the level of fear for the Bedouin Israeli children was the speculation of greater parental control for Bedouin children, which provided them with a sense of security and safety, resulting in an earlier decline in fear levels. The Jewish Israeli children, on the other hand, were expected to be more independent and subsequently felt less fearful only at a later stage around 10 years of age (Elbedour et al., 1997). The results show that the Bedouin children display a higher average fear intensity and prevalence score compared to the Israeli children living in a western-orientated culture. This may be ascribed to Israeli Bedouin parents. They systematically foster fear development, as well as presumably fear expression in their children, by telling vivid tales of the grim destiny of wayward youth. This practice can be understood as fostering dependence upon the tribe and submission to its elders (Elbedour et al., 1997).

Some studies have contradicted the above-mentioned since no such relationship between age and the number of fears was revealed (Derenvensky, 1979; Maurer, 1965; Ollendick, 1983; Ollendick et al., 1985a, 1991; Scherer & Nakamura, 1968; Sidana, 1975).

In a study by Ollendick (1983) results indicated that girls reported an average of 13 excessive

fears and boys reported an average of 9 excessive fears in the age group of 8 to 11. Lapouse and Monk (1959) conducted a study in the late fifties, reporting that a child expressed an average number of 11 fears in the age group of 6 to 12. Girls expressed an average of 16,14 fears and boys an average of 8,28 fears in a study of 7 to 18 year olds (Ollendick et al., 1985a).

The mean intensity and especially the prevalence scores found for Hellenic children was higher that those obtained with the FSSC-R with children from Australia, UK, USA and China (Mellon et al., 2004; Ollendick et al., 1991, 1996). However, in comparison to the results obtained with the FSSC-R from middle childhood South African children (Burkhardt et al., 2003), the mean intensity as well as prevalence scores of Hellenic children are slightly lower. This finding is also true for FSSC-R results from Nigerian children (Ollendick et al., 1991, 1996). Although fear is not considered a positive attribute in Greece, emotional expression might be more tolerated, hence the findings (Mellon et al., 2004). A study by Rosenthal, Efklides and Demetriou (1988) found that young Hellenic adolescents more readily disclose school problems and personal concerns to their parents than Australians of Greek and Anglican ethnicity.

Research findings in a study by Tikalsky and Wallace (1988) indicated that Navajo children reported many more fears than Caucasian children living in the same area. These results need to be seen within the cultural context since in the traditional Navajo culture displaying many fears may be seen as a sign of perceptivity rather than weakness. As is demonstrated by the above, as well as previously mentioned research, cultural differences in tolerance, reinforcement and punishment of fear disclosure are known to be associated with levels of self-reported fears.

Peleg-Popko and Dar (2001) explored relationships among marital quality, family patterns and children's fears as well as social anxiety. Family patterns relating to adaptability and cohesion were studied. Mothers of children between the ages of 5-6 attending kindergartens in northern Israel were asked to complete Hebrew versions of questionnaires. The findings suggest that children form rigid, fused families or low quality marriages may be at risk, since high levels of fear and social anxiety persist.

Gender role orientation and fearfulness in children with anxiety disorders was explored by

Ginsburg and Silverman (2000). The findings suggested that masculinity was negatively related to overall levels of fearfulness, specific fears of failure and criticism, medical fears, as well as fears of the unknown. However, no relation between femininity and fearfulness seems to have been found. The findings indicate that the absence of masculinity or instrumental traits may place children at risk to experience distressing fear levels. Thus masculinity may play a role in the development and or maintenance of fearfulness in children.

In the light of the above, it becomes apparent that research with respect to the number of fears is extensive and often yields different results, depending on certain factors such as the method applied, participants' ages and respective contexts. What is depicted by the above, is that boys tend to express fewer fears in comparison to girls and that both boys as well as girls experience multiple fears.

A summary of some research findings with respect to number of fears are outlined in Table 1.

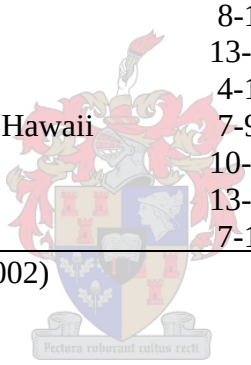
Table 1
Summary of Normative Data Regarding the Number of Fears of Children Based on some of the Previous Research

Study	Instrument	Country/Culture	Age group	All	Girls	Boys
Angelino et al. (1956)	Requested to write down fears and worries	North America	9-18	4		
Dong et al. (1994)	FSSC-R	China	7-17		18	12
			7-10	16		
			11-13	17		
			14-17	12		
Ingman, Ollendick & Akande (1999)	FSSC-R	Nigeria	8-17	25,1		
		Kenya	8-17	20,94		
			8-12	24,83		
			13-17	22,17		
King et al. (1989)	FSSC-R	Australia	8-16		18	10
King, Gullone & Stafford (1990)	FSSC-R	Australia (Health-impaired children)	7-18	15,67		
Lapouse & Monk (1959)	Interview Schedule	North America	6-12	11		
Mellon et al. (2004)	FSSC-GR	Greece	7-12	21.1	25,1	17,3
			7-8	21,1	24,7	17,4
			8-9	23,0	26,5	19,5
			9-10	21,6	26,4	16,9
			10-11	21,6	25,0	17,5
			11-12	19,6	23,1	16,4
Last et al. (1989)	FSSC-R	U.S.A	5-18			
		Seperation Anxiety Disorder		15,6		
		Over Anxious Disorder		14,0		
		Phobic Disorder of School		8,9		
Nalven (1970)	Requested to write down fears and worries	North America	10-11	5,3		
Ollendick (1983)	FSSC-R	North America	8-11		13	9
Ollendick et al. (1985a)	FSSC-R	North America	7-18		16,14	8,28
Ollendick et al. (1996)	FSSC-R	North America	7-17	13,6	17	10,2
			7-10	16,96		
			11-13	11,97		
			14-17	11,88		
		Australia	7-17	14,29	17,53	11,04
			7-10	19,84		
			11-13	13,81		
			14-17	9,21		
		China	7-17	15,52	18,32	12,73
			7-10	16,91		

Table 1 continued

Study	Instrument	Country/Culture	Age group	All	Girls	Boys
			11-13	17,04		
			14-17	12,62		
		Nigeria	7-17	26,08	25,82	26,34
			7-10	28,17		
			11-13	24,89		
			14-17	25,18		
		Overall	7-17	17,37	19,67	15,08
			7-10	20,47		
			11-13	16, 93		
			14-17	14,72		
Ollendick et al. (1989)	FSSC-R	America & Australia	7-16		18	10
			7-10	17		
			11-13	13		
			14-16	12		
		North America	7-16	14		
		Australia	7-16	14		
Slee & Cross (1989)	Self-rating Checklist	Australia	4-7	10,6	12,1	9,2
			8-12	9,4	11,5	7,2
			13-19	8,0	9,6	6,4
			4-19	9,3	11,1	7,6
Shore & Rapport (1998)	FSSC-HI	Hawaii	7-9	30,33	33,33	26,33
			10-12	21,65	24,27	18,98
			13-16	15,46	16,43	14,47
			7-16	22,48	25,21	19,54

Sources: Adapted from Burkhardt (2002)



The symbol 'M' in Table 2 displays the mean level of fear. This score can be interpreted as the level of fear, the sum of the responses to the 80 items out of the 240 possible points. A summary of research findings with respect to the level of fear is represented in Table 2.

Table 2
Summary of the Level of Fear Based on some of the Previous Research

Study	Instrument	Country/Culture	Age group	All (M)	Girls (M)	Boys (M)
Dong et al. (1994)	FSSC-R	Chinese	7-10	131,84		
			11-13	138,54		
			14-17	129,71		
			7-17		141,62	125,67
Burnham & Gullone (1997)	FSSC-II	America	7-10	136,23		
			11-14	128,44		
			15-18	122,46		
			7-18	128,74	138,02	116,48
Elbedour et al. (1999)	FSSC-R	Bedouin Israeli	8-12	135,77		
		Jewish Israeli	8-12	98,53		
		Israel	8-12		127,99	108,32
Ginsburg & Silverman (2000)	FSSC-R	U.S.A. clinical sample Child Anxiety and Phobia Program	6-11	142,23	148,23	139,30
Gullone & King (1993)	FSSC-R	Australia	7-10	139,10		
			11-14	131,16		
			15-18	124,74		
			7-18		142,72	121,36
Gullone, King & Ollendick (2001)	FSSC-R	Australia	7-18	136,32		
Ingman et al. (1999)	FSSC-R	Nigeria	8-12	164,07		
		Kenya	8-12	153,36		
King et al. (1989)	FSSC-R	Australia	8-10	140		
			11-13	136		
			14-16	131		
			8-16		145	126
Last et al. (1989)	FSSC-R	U.S.A 5-18 Seperation Anxiety Disorder		133,1		
		Over Anxious Disorder		132,9		
		Phobic Disorder of School		122,8		
McCathie & Spence (1991)	FSSC-R	Australia	Grade 3		168,28	117,90
			Grade 4		139,04	124,11
			Grade 5		142,00	128,8
			Grade 6		134,89	120,77
			Overall	135,11		
Mellon et al. (2004)	FSSC-GR	Greece	7-12	143,0	152,7	134,0
			7-8	139,7	148,0	131,3
			8-9	144,9	154,6	136,2
			9- 10	143,4	155,0	132,2
			10-11	144,3	153,2	136,4
			11-12	141,8	151,1	133,4
Muris & Ollendick (2002)	FSSC-HI	Belgium	12-15	128,1		
			16-19	123,6		
			12-19	126,3	136,3	114,5

Table 2 continued

Study	Instrument	Country/Culture	Age group	All (M)	Girls (M)	Boys (M)
Muris, Merckelbach, Ollendick, King & Bogie (2002d)	FSSC-HI	Belgium	12-18	98,0	105,4	89,3
Muris, Meesters, Mayer, Bogie, Luijten, Geebelen, Bessems & Smit (2003)	FSSC-R	Netherlands	7-13	110,7	116,3	103,8
	Koala Fear Questionnaire	Netherlands	7-13	108,9	115,4	100,9
Ollendick et al. (1996)	FSSC-R	U.S.A.	7-10	139,83		
			11-13	132,00		
			14-17	127,77		
			7-17	133,20	141,08	125,32
		Australia	7-10	144,86		
			11-13	134,14		
			14-17	122,53		
			7-17	133,20	143,77	123,92
		China	7-10	133,36		
			11-13	137,70		
			14-17	130,32		
			7-17	133,79	141,61	125,98
		Nigeria	7-10	164,36		
			11-13	160,42		
			14-17	162,74		
		not significant	7-17	162,51	161,17	163,85
		All	7-10	145,60		
			11-13	141,60		
			14-17	135,84		
			7-17	140,84	146,91	134,77
Ollendick et al. (1985a)	FSSC-R	America	7-9	137,11		
			10-12	139,12		
			13-15	136,63		
			16-18	137,60		
			7-18		142,64	123,35
Ollendick et al. (1989)	FSSC-R	America	7-10	138,83		
		Australia	11-13	133,44		
			14-16	129,46		
			7-18		143,91	124,93
		America	7-18	134,50		
		Australia	7-18	133,70		
Ollendick et al. (1991)	FSSC-R	Britain	8-10	138,33	143,29	133,03
Ollendick, Yang, Dong, Xia & Lin (1995)	FSSC-R	China	7-10	132,29		
			11-13	137,98		
			14-17	130,61		
			7-17		141,61	125,99

Table 2 continued

Study	Instrument	Country/Culture	Age group	All (M)	Girls (M)	Boys (M)
Shore & Rapport (1998)	FSSC-HI	Hawaii	7-16	139,61	146,79	135,84
		Asian American	7-16	164,92	167,26	161,89
		Filipinos	7-16	162,31	170,22	157,40
		Hawaiins native	7-16	160,60	165,85	153,30
		All	7-16	159,29	165,74	155,09
		All	7-9	173,83	178,99	166,96
		All	10-12	157,72	163,80	151,49
		All	13-16	146,33	150,77	142,22
		All	7-16	159,29	165,36	152,67
Weems et al. (1999)	FSSC-R (Clinical sample)	U.S.A.	6-17	132,59		
	FSSC-R/P (Parent version)			137,28		

Source: Adapted from Burkhardt (2002)

3.1.3 Pattern of fear

The pattern of fear represents the sum of the responses of the items on each of the factors and as such is the exploration of the level of fear on each respective factor. The pattern of fear is important because it is also linked to the content of fear, since the factor from which the ten most common fears originate is often mentioned in the same context. Furthermore, factor analysis is often used in order to determine the factor structure as well as, which factor structure is most appropriate for the data.

As previously mentioned, the FSSC-R by Ollendick (1983) is relevant for the present study as it allows for the most cross-cultural comparisons. A five factor solution was found to demonstrate the best conceptual fit and was derived from factor analysis by Ollendick (1983). The following depicts more detail regarding each factor: Factor 1 represents the fear of failure and criticism and includes aspects such as the fear of looking foolish or being teased. Factor 2 entails the fear of the unknown and some of the fears loaded onto this factor are thunderstorms, dark rooms or closets and travelling by train. The fear of injury and small animals comprises factor 3, with the fear of lizards, guns and flying in a plane being examples of items loaded onto this factor. Factor 4 represents the fear of danger and death which concerns items such as death or dead people, earthquakes and fire or getting burnt. Factor 5, the last factor, represents medical fears with examples being: fear of travelling by a car, going to the dentist and getting car sick.

The Fear Survey Schedule for Children and Adolescents-II (FSSC-II) was administered to 918 Australian children and adolescents, between the ages of 7 to 18 years by Gullone and King (1993). This was an adaptation from the FSSC-R for the Australian context. The five factors found to be relevant for the FSSC-II are: death and danger, the unknown, failure and criticism, animals and psychic stress-medical fears. The results reveal that the most prevalent fears continue to be related to danger and death.

The pattern of fear in a study by Ollendick et al. (1991), where 327 British school children completed the FSSC-R, was found to be similar upon comparison to the pattern of fear of 825 Chinese children in a study by Dong et al. (1994).

Research by Neal et al. (1993) indicated that a five-factor solution was appropriate for the white children and that a three-factor solution suited the African American children. The FSSC-R was administered to African American and white children between the ages 6-12 years in Ohio, America. Principal components analysis with a varimax rotation was performed. The five factors included the fear of danger, fear of the unknown and creepy crawlies, school fears, medical fears and fear of embarrassment. This five factors solution closely resembled Ollendick's (1983) solution conceptually. The three factor solution differed with regard to the absence of school fears and the fear of embarrassment.

Elbedour et al. (1997) administered a modified version of the FSSC-R to 865 Israeli Jewish and Israeli Bedouin children, ranging from 8 to 12 years of age. The five factors found to demonstrate the best conceptual fit are: fear of physical injuries, fear of the unknown, fear of being hassled, fear of evaluation and fear of failure or punishment. The Jewish children indicated that they feared physical injuries most, followed by fear of the unknown and punishment, being least afraid of being hassled or of evaluation. The Bedouin children displayed that they mainly feared three things: physical injuries, the unknown and punishment. They were found to be least afraid of being hassled or evaluation, similar to their Jewish counterparts. Age differences were apparent on three of the five factors for the Jewish children namely; fear of physical injuries, fear of the unknown and fear of failure and punishment. The results indicated age differences for the Bedouin children on all these three factors as well as on the fear of being hassled.

The FSSC-II (Gullone & King, 1992) was modified by Bouldin and Pratt (1998) into a parent report (FSSC-IIP) for younger children. The FSSC-IIP was completed by 753 parents of children within the age range 3.0 to 8.9 years. A principal components' analysis with varimax rotation was conducted and yielded a eight-factor solution. The eight factors comprised the fear of death and danger, fear of failure and criticism, animal fears, psychic stress-medical fears, mythical creatures fears, vulnerability fears, school fears and altered environment fears. This eight factor solution was found to be sensitive to age and gender differences. The findings seem to indicate that according to parental reports, school-going children experience more fears that preschool children and that girls express more fears than boys. The researchers cautioned when interpreting the latter, as parents may also seem to report according to sex role expectations. Furthermore the increase in fears with an increase in age is not necessarily contradictory to previous research, since the sample consisted of younger children.

The FSSC-R (Ollendick, 1983) was administered by Ingman et al. (1999) to 852 children and adolescents of whom 551 came from Nigeria, 310 from Kenya and 217 of the participants practised Christianity while 635 practised Islam. The results revealed that the Nigerian children expressed higher levels of fear on all factors with the exception of the factor of danger and death, than their Kenyan counterparts. The Christian children expressed higher levels of fear on three factors, namely; fear of failure and criticism, fear of the unknown as well as the fear of injury and small animals.

On the other hand, the Muslim children displayed a higher level of fear on the remaining two factors, danger and death as well as medical fears. Ingman et al. (1999) suggests that the above-mentioned findings can be ascribed to the fact that Muslim children may be encouraged to be braver, thus reporting less fears, or that the possibility exists that the Islamic belief aids children in dealing better with their fear than the Christian belief. The findings also indicate that younger children report a higher level of fear for the fear of the unknown than adolescents, suggesting that children fear the things they have not previously encountered.

Shore and Rapport (1998) administered a revised form of the FSSC-R, namely the FSSC-Hawaii (FSSC-HI), to a ethnoculturally diverse sample of 385 Hawaii school children aged 7 to 16 years. A comparison of factor analytic procedures (principal components analysis with orthogonal rotation vs. common factor analysis with oblique rotation) was performed to

determine whether discrepancies in the factor structure reported in previous studies, may be as a result of different statistical techniques. Results indicated that there were no significant differences in factor item loading. However, a seven-factor solution was found to be the best conceptual fit for the data. The factors pertaining to the fear of danger and death, fear of the unknown, and animal fears were found to be identical or conceptually similar to those reported in previous studies (Ollendick, 1983). The fourth factor entailed everyday worries such as 'getting a bee sting', 'getting sick at school' and 'being in a crowd'. The last three factors consisted of distinct types of social fears namely, anticipatory social fears, aversive social fears and social conformity fears. The item content of the latter factor included a combination of unique fears such as 'shaming my family', reworded items, such as 'being teased about how I look' and traditional items, such as 'having to wear clothes different from others'. The researchers suggested that the broader range of social fears was most likely attributable to the multi-ethnic sample rather that the multicultural environment (Shore & Rapport, 1998).

In a study by Muris and Ollendick (2002) a modified version of the FSSC-R, the FSSC-Hawaii (FSSC-HI), was administered to a sample of Belgium adolescents aged 12-19 years. The FSSC-HI included a number of contemporary fears such as 'drugs', 'being raped', and 'AIDS'. Exploratory factor analyses (principal components with direct oblimin rotation) were preformed on the FSSC-HI data to retain five- and seven-factor solutions. Confirmatory factor analysis was also preformed. The results indicated that a five- and seven-factor model both proved to be satisfactory. The difference between the five- and seven-factor solution was with respect to the factor of 'Fear of Failure and Criticism'. This factor was spilt into three separate 'social fears'. Each factor seemed to tap into unique aspects of social anxiety, namely fear of punishment by authority figures, fear of performing badly in school and fear of negative evaluation in social situations. This provided a more detailed picture of children's social fears.

The fears of children in the United States were examined by the American Fear Survey Schedule with 20 new items in a study by Burnham (2005). The methodology was consistent with Gullone and King's (1992, 1993). The five-factor solution was retained after taking into account the conceptual fit, interpretability and previous studies (Gullone & King, 1992; Ollendick, 1983). The five factors that emerged were: Factor I-Fear of Danger and Death, Factor II-Fear of the Unknown, Factor III-School/Social Stress, Factor IV- Animal Fears and Factor V-Fear of Criticism/Failure. Gullone (1996) suggested that the typical components that

are found after component analysis include: social rejection, death and danger, animals, medical treatment, psychic stress and the fear of the unknown. Burnham's (2005) findings indicate that this is applicable to four of the five components/factors and that the school/social stress fears component is unique. The component structure of the FSSC-AM appears to maintain the component structure of previous studies (Burnham & Gullone, 1997; Gullone & King, 1992; Ollendick, 1983).

The factor structure of the Fear Survey Schedule for Children-II in Trinidadian children and adolescents was explored in a study by Fisher, Schaefer, Watkins, Worrell and Hall (2006). The results indicated that a five-factor solution for the overall sample was the best fit for the data. The five factors were: fear of danger and death, school fears/fear of failure and criticism, fear of the unknown, medical fears and animal fears. The factor structure was conceptually similar to those reported in other studies that administered versions of the FSSC but the obtained structure was not congruent across age, sex or nationality.

Mellon et al. (2004) assessed the factor structure, intensity, prevalence and content of fears of Hellenic children aged 7 - 12 years by means of the Hellenic Fear Survey Schedule for Children. Results indicated that a seven-factor solution provided the best conceptual fit. The first five-factors were found to closely correlate with the existing FSSC-R factors namely; 'danger and death', 'the unknown', 'failure and criticism', 'injury and small animals', as well as 'medical fears'. The two additional factors were: 'travel and agoraphobic' and 'school performance'. These additional factors were explained in terms of reflecting Hellenic children's distinctive features of the environment and lifestyle.

Research has indicated that a five factor solution is not always the best conceptual fit for the FSSC-R, depending on the context in which the research is done. The implications this has for the present study is, to not assume that a five-factor solution is appropriate and to impose this, but to rather explore the factor structure or to determine which factor solution provides the best conceptual fit for the data.

3.1.4 Stability of fears

Research has also ensued regarding the time course of children's fears as well as to which degree childhood fears persist. Longitudinal studies were conducted in order to explore the

stability of fears over a specific time period. This section will thus review literature with regard to the duration of fear over time.

The stability in content, number and pattern of fears over a one-year period was found to be moderate in a study which examined 492 (237 boys and 255 girls) Chinese children and adolescents between the ages of 7 and 17. This stability, however, was said to depend on age and sex factors. In addition, perceptions of fear level in others, perceptions of the controllability and modifiability of the fears were also said to be determinants of subsequent reported level of fears (Dong et al., 1995).

In another study by Spence and McCathie (1993), where 96 (58 girls and 36 boys) children were involved, the stability of fears in the children was explored. The first assessment of the Grade 3 and 4 children commenced in early March and April, 1989. Two years later the second assessment took place between the end of February and early April 1991, when the respective children were attending Grade 5 and 6. Results indicated that the most common fears remained relatively stable over time and were primarily concerned with fears of injury, death or danger. Furthermore, children who were fearful at the first round of testing were more likely to report high levels of fear at the second session of testing. The only fear to increase over time was the fear of giving a spoken report. Since the children were aged between 7 and 10, this finding correlated with existing data reporting that as a child starts school, social fears and fears of achievement emerge (Turner & Helms, 1995).

Further support is given to the above by a study of Gullone and King (1997) who found that gender and initial fear scores were better indicators with which to predict follow-up scores. Results suggest that fearfulness decreases most markedly during childhood and early adolescent years, suggesting that fears experienced during late adolescence and approaching adulthood are more enduring. Age-related decline of fearfulness was reportedly much more prominent in girls than boys.

Gullone, King and Ollendick. (2001) conducted a longitudinal study, investigating the continuity/discontinuity of self-reported anxiety in children as well as adolescents over a three-year period. The sample consisted of 68 children. The Revised Children's Manifest Anxiety Scale (RCMAS) was administered to a portion of the sample. This was done in order to determine the convergent validity of the FSSC-II. The results indicated that overall general

anxiety decreased over time and was influenced by variables such as sex and age, which was consistent with previous findings (Gullone & King; 1997). Furthermore, girls scored higher than boys on anxiety. The children who scored higher at the beginning of the research process demonstrated the most marked decreases over the 3-year period. To a certain extent this can reflect regression to the mean, but can also suggest that there may be an optimal or 'normal' level of anxiety, which develops through maturation. The data also indicated a continuity in anxiety with levels of anxiety at inception being significant predictors of follow-up anxiety. The results indicated that only a small amount of variance was shared. Statistical analyses indicated that gender was not a significant factor in predicting follow-up anxiety (Gullone et al., 2001). These findings were also consistent with previous follow-up studies of normal fear (Gullone & King, 1997). The limitations of this study include a small sample size and only using one anxiety instrument.

In conclusion, longitudinal studies have reported that normative fears are relatively transitory and that they decrease with an increase in age.

3.1.5 Developmental changes in fears

This section reviews in more detail the developmental fear content changes that occur and mentions factors that could play a role with this process.

The changes occurring in the content of fear during childhood from imaginary to more realistic fears can be ascribed to developmental changes, more specifically that of differentiation. Development proceeds from a state of lack of differentiation to one of internal representations of objective reality. Thus, the structure of fear develops from a formless and imaginary to a specific and realistic one (Bauer, 1976; King et al., 1997b). This process plays a role especially in children's perception of reality, socialisation process and the conceptions of death (Bauer, 1976). The exact mechanisms are not fully understood, but what is well known is that the change in fears are accredited to the child's cognitive capacity for realising and understanding the potential harm or danger of specific events or places. It thus could be said that fears are common, adaptive and have a survival value (Dong et al., 1994).

The prominence of fears of physical threats during early to middle childhood has been ascribed to its survival value. Children appear to be endowed with a natural instinct to avoid

potentially harmful situations as well as being encouraged by their parents to do so (Marks, 1987). The observed decline of fears of physical threats in late childhood and early adolescence has been attributed to cognitive- and physical maturation, to increasing knowledge as well as awareness of one's physical surroundings (Gullone, 2000).

The decrease in physical fears with an increase in age has consistently been shown. The same is not applicable to the relationship between age and social fears. Most studies utilising the FSSC-R have shown that there seems to be no relationship between age and socio-evaluative fears (Gullone et al., 2001; King et al., 1992, 1989; Ollendick et al., 1985a). A few other studies report a decrease in socio-evaluative fears (Factor 5 - fear of failure and criticism) (Dong et al., 1995; Gullone & Lane, 2002; Ollendick et al., 1989). A non-linear relationship with age was reported by Dong et al. (1994). The results indicated an increase between late childhood and early adolescence in socio-evaluative fears, which is followed by a decrease.

An increase was reported in a study by Gullone and King (1997) where the psychic stress-medical fear subscale included 5 social fear items. Westenberg et al. (2004) reported that fears concerning physical danger and of punishment decreased with age, whereas fears concerning social evaluation and achievement increased with age. The researchers explained that when the total fear scores were computed from all items, a decline between late childhood and adolescence is apparent. However, the total fear score entails more items of physical fears and thus the chances of finding a decline in fears is greater.

Furthermore, the different age trends of physical fears and socio-evaluative fears are masked when all items are combined into one scale. The findings indicated that the expression of socio-evaluative fears during adolescence appears atypical and might be a corollary of socio-cognitive maturation. Socio-cognitive maturation entails a rise in self-consciousness and self-awareness. It is noted that the presence of socio-evaluative fears during adolescence appears to constitute a vulnerability for developing a social anxiety disorder. Environmental pressures such as parents, teachers and society at large, who often put greater demands on adolescents than on children, were not included in the present study.

At an very early age children demonstrate simple fears and are afraid of their immediate environment such as loud or scary noises, loss of support, abandonment and parental separation. During the toddler years fear of imaginary creatures and small animals becomes

apparent. The fear of darkness prevails, especially at the age of four (Bauer, 1976; Elbedour et al., 1997). Research by Draper and James (1985) indicated that startling events, noises, animals, certain persons or objects, the dark, being alone and strange sights were sources of anxiety of which young children were most afraid. An increase in the fears of the dark, being alone and strange sights over the years was found for the same age group.

The world of a child expands from the family outwards, between the ages of 6 to 12, as new relationships are formed with friends, teachers, caretakers and others, due to the beginning of the school career. Furthermore, it is an important preparation time for adolescence. Research indicates that during middle childhood the fears of bodily injury or harm decrease, but there is an increase in the fears of school, especially fears of academic achievement, fears of tests and examinations (Turner & Helms, 1995). Through adolescence, childhood fears start to recede and the most common fears are related to injury, natural events, social rejection and social anxiety. These remain relatively constant over time (Ollendick et al., 1985a; Elbedour et al., 1997).

The developmental pattern of children's fear content is represented in Table 3.

Table 3
Normative Data on Children's Fears

Age	Fears
0-6 months	Loss of support, loud noises, excessive or unexpected stimuli.
7-12 months	Fear of strangers, novel stimuli (e.g. masks, heights), fear of sudden and or unexpected objects as well as of looming objects.
1 years	Parental separation, toilet, injury and strangers.
2 years	A variety of loud noises (i.e. vacuum cleaners, alarms and thunder) animals, dark rooms, parental separation, monsters and imaginary creatures.
3 years	Masks, darkness, being alone, parental separation and large animals.
4 years	Parental separation, animals, darkness and noises.
5 years	Animals, injury, parental separation, and "bad" people.
6 years	Supernatural beings, injuries, natural phenomena, darkness, being alone, and parental separation.
7-8 years	Supernatural beings, darkness, being alone, injuries and global events (i.e. media).
9-12 years	School related fears, injuries, social fears, phenomena and darkness.
13-18 years	Injuries, social anxiety and more global fears.
19+ years	Death, danger, injuries, natural phenomena and global fears.

Sources: Adjusted from Morris and Kratochwill, 1991; Reed et al. 1992

The increase in age correlates with an increase in ego strength and cognitive abilities, leading children to have a more mature understanding of their environment and therefore, a decrease in the number of fears. The child's understanding of the environment and or world is, however, related to the context in which the child lives. In conclusion it can be said that children's fears do not depend only on development but that they also reflect the child's understanding of the world, which in turn is affected by the culture in which a child lives (Slee & Cross, 1989).

Support for the influence of developmental rather than a learned behavioural trend in children's fears is provided by Maurer (1965). He mentions that the things children are taught to fear, like kidnappers, traffic and germs were rarely mentioned. According to Maurer (1965), the inclination with development to fear more realistic objects depends on experience learning rather than instruction.

As children mature there is a predictable parade of normal fears which emerge, plateau and then decline. This entire process is under genetic control in interaction with the environment. An interruption can be critical, depending at which the stage the interruption occurs. Fears can emerge innately or after a trigger, some, however, need to be learned. Fear can increase in new, unfamiliar settings and with social deprivation (Marks, 1987).

In summary, at a very early age (1-2 years) children express immediate fears; at a later age (4-8 years) anticipatory or imaginative fears are experienced and adolescents (9-18 years) are most often linked to fears of failure and social criticism (Gullone & King, 1992; Ollendick et al., 1985a).

3.1.6 Seriousness of fears

It is important to gain a comprehensive knowledge regarding fears as well as their development because research has shown that excessive fears or fearfulness during childhood may place children at risk to the development of anxiety disorders during adolescence (Biederman, Rosenbaum, Bolduc-Murphy, Faraone, Chaloff, Hirshfeld & Kagan, 1993).

Unpleasant emotions during childhood such as pervasive anxiety and global depression are

often associated with persistent fears (Ollendick & Yule, 1990). Furthermore, lower self-concepts and more external locus of control orientations are linked to excessive fears in childhood and adolescence (Ollendick, 1983). It was found that children and adolescents who are highly fearful display a tendency to feel less good about themselves, believe they are less efficacious in their ability to control events that take place around them and tend to be somewhat depressed or anxious.

The average number of fears for children as measured by the FSSC-R was reported to be 14 in a study by Ollendick et al. (1989). Results from other studies indicate similar findings (Ollendick et al., 1996). Thus the need arises to understand how serious these fears are.

Muris et al. (2000a) conducted a study with the aim being to determine how serious common childhood fears are. The findings of the study by Muris et al. (2000a) indicated that childhood fears are common, a normal part of development and that they reflect significant anxiety disorders in a substantial minority. The full criteria for anxiety disorders appeared to be met by one fifth of the sample (22,8%). This high prevalence rate was ascribed to the procedure used as well as the age-group (8-13) of the study. The results suggest that childhood fears for a substantial minority of children interferes with their daily routine.

The seriousness of these fears over time was explored by Last, Perrin, Hersen and Kazdin (1996). A group of clinically referred children diagnosed with anxiety disorders was followed for 3 to 4 years. Results indicate that an early age of onset and other factors at intake play a role in slower recovery. A high remission rate was apparent, with more than 80% of the participating children no longer fulfilling the diagnostic criteria for their initial anxiety disorder.

The frequency of fearful thoughts and avoidance behaviour with respect to children's fears was examined in a study by McCathie and Spence (1991). A robust connection was found among the fears as well as with the frequency of fearful thoughts and avoidance behaviour, suggesting that avoidance behaviour and aversive thoughts accompany children's fears. The researchers mentioned, however, that the possibility exists that the children between the ages of 10 and 12 could have experienced difficulty understanding the concepts of frequency and avoidance.

In a study by Ollendick and King (1994) a large majority of children reported that their fears do interfere with daily activities. This finding suggests that there is at least a subgroup of children enduring clinically significant and disabling fears.

The study by Westenberg et al. (2004), where the developmental analysis of social-evaluative fears was explored, suggests that the presence of social-evaluative fears during adolescence appears to constitute a vulnerability for developing a social anxiety disorder at a later stage. The average age of onset of a social anxiety disorder appears to be in the mid-teens (American Psychiatric Association, 1994; Wittchen, Stein & Kessler, 1999).

Further longitudinal studies are recommended in order to determine the extent to which anxiety disorders are persistent. In a study by Öst (1987), it was found that the earliest onset of phobias occurred, especially for simple phobia, during childhood. The age of onset depends on the method of acquisition. The study by Muris et al. (2000a) suggests that the relationship between dominant childhood fears and anxiety disorders is not very specific. The present study emphasises the need for early intervention because of the substantial minority of children with anxiety disorders.

3.1.7 Origins of childhood fears

Childhood fears can probably be ascribed to an interaction of several factors: biological, environmental and cognitive-mediational (Graziano et al., 1979; King et al. 1988).

Rachman (1977) suggests two main pathways of fear acquisition: direct conditioning and indirect conditioning. Indirect conditioning can be further subdivided into two pathways. Thus the overall pathways being: Direct conditioning, vicarious conditioning and information giving or instruction. The latter pathway accounting for the largest number of the most commonly encountered fears. It is important to remember that the last two pathways of fear acquisition can take place without direct contact with the fear stimuli. Parents and siblings play an contributing role in the reinforcement of fears. A study by Muris, Loxton, Neuman, du Plessis, King and Ollendick (2006) supports the latter. The researchers explored DSM-defined anxiety disorders symptoms in South African youths with respect to assessment as well as the relationship with perceived parental rearing behaviours. Their findings indicate positive correlations between anxious rearing, overprotection and rejection as well as anxiety

symptoms.

Other fear acquisition explanations include individual difference variables, such as temperament (Kagan, 1989; Kagan & Snidman, 1991; King et al., 1988), cognitive-developmental factors (Miller, 1983) as well as the prepotency and preparedness of the stimuli (Marks, 1969; Seligman, 1971).

Ollendick and King (1991) examined the origins of common childhood fears by evaluating the extent of application of Rachman's theory of fear acquisition with respect to the ten most common FSSC-R fears. Children and adolescents were provided with a brief questionnaire relating to their fears asking them to indicate (a) whether they remembered having a bad or frightening experience relating to their fears (i.e., conditioning), (b) whether their parents, friends, or other acquaintances showed fear when experiencing their fears (i.e., modelling) and (c) whether they had heard or seen frightening things about their fears from the media or other people (i.e., information). Negative information (88,80%) was found to play a very prominent role in fear acquisition. Modelling (56,20%) and conditioning (35,70%) were also mentioned. However, it was suggested that when looking at the overall findings, the three fear pathways are interactive rather than being independent. A criticism of the study argues that a broad definition of etiological pathways was used which could have yielded inaccurate estimates of the roles which the respective pathways play.

In a study by Muris et al. (1997a), results indicated that although negative information was reported more often by children than conditioning or modelling, it was not the dominant pathway of fear acquisition. This study hypothesized that with a more strict definition, the dominant pathway would be found to be conditioning. The results confirmed this by indicating that the most prominent pathway was indeed conditioning (45,80%), followed by the information pathway (35,10%) and modelling (only 3,80%). The conditioning pathway was found to be dominant with respect to the fear of animals, medical fears and fear of failure and criticism. The information pathway was found to be dominant only with specific types of fear such as fear of the unknown, danger and death. Furthermore, the results indicated that highly fearful children more often endorsed conditioning experiences than low or moderately fearful children.

The above-mentioned supports Rachman's (Rachman, 1977, 1991) elaboration of the classical

theory; the conditioning model to a more comprehensive theory by means of modifications and extensions of the classical theory. Other studies with similar results lend further support (King, Clowes-Hollins & Ollendick, 1997a; Milgrom, Mancl, King & Weinstein, 1995). In summary, it can be said that a more comprehensive view of fear acquisition needs to be taken into consideration as suggested by Rachman (1977). Thus social and cultural factors may play an important role as well as having a possible impact in fear acquisition.

In a study by Muris et al. (2000b) the distribution of the pathways of fear found deviated from the above. Negative information was reported by a large percentage of children (55,20%) to be involved in the etiology of their main fear. To a lesser extent conditioning (33,10%) and modelling (25,50%) contributed to the etiology of their fears. This deviation can be attributed to the age range of the children (4-12 years of age). Younger children more frequently reported fears of imaginary creatures. These fears are mostly attributed to the information pathway and provide an adequate explanation, bearing in mind that the children in the study by Muris et al. (1997a) were aged 8 to 12.

In a review by King, Gullone and Ollendick (1998), empirical support was found for Rachman's three pathway theory with respect to the origins of common childhood fears. Research evaluating Rachman's (1977, 1991) theory of fear acquisition has often been criticised because of its retrospective nature. Fearful subjects have been asked to reflect on past experiences as well as to identify conditioning, modelling and negative information events in relation of the feared stimulus. It has been argued that retrospective accounts may be fueled by the attribution style of fearful children instead of their actual experiences (Withers & Deane; 1995).

Field, Argyrus and Knowles (2001) conducted a prospective study on the role of negative information in the exacerbation of childhood fear. Two experiments were conducted where 7-9-year-old children either received negative or positive information regarding an unknown monster doll. The study reported that negative information significantly increased children's fear ratings in contrast after receiving positive information fear ratings only slightly decreased. Furthermore, when negative information was directly provided by an adult, the fear enhancing effect was found to be particularly strong. Girls were generally found to be more fearful than boys (Croake, 1969; Dong et al., 1994; Elbedour et al., 1997; Graziano et al., 1979; Ingman et al., 1997; King et al., 1989; Lapouse & Monk, 1959; Ollendick, 1983;

Ollendick et al., 1985a, 1991, Scherer & Nakamura, 1968; Slee & Cross, 1989; Spence & McCathie, 1993), which raises the question whether girls are more susceptible to fear-provoking information than boys (Field et al., 2001).

Muris, Bodden, Merckelbach, Ollendick and King (2003) attempted to extend the research of Field et al., (2001) by focusing on the effects of negative information in the enhancement of childhood fear. Children between the ages of 4 and 12 were provided with either negative or positive information about an unknown, doglike animal called 'the beast'. The children's fears were measured at three time intervals: (1) before, (2) directly after and (3) one week after the information was provided. This enabled the researchers to conduct pre-, post- and follow-up assessments. The results indicated that the type of information influenced children's fears of 'the beast' as predicted. Thus negative information was found to increase fear levels and positive information decreased fear levels. This was consistently found at all three time intervals. The fear of 'the beast' seemed to generalise because children who became more fearful of 'the beast' after receiving negative information also became more apprehensive of dogs and predators.

The distribution of normal fear experiences is not sufficiently explained by the cognitive development and learning pathways. The preparedness concept (Seligman, 1971), derived form Darwin's theory (1859) of natural selection, provides a more adequate explanation regarding certain stimuli that are biologically significant. The organism is as such prepared to learn to fear these stimuli. This prepared learning can be seen as resistant to extinction, selective, probably non-cognitive and can be acquired in once-off situation.

Although a substantial amount of scientific evidence is available on the origins or causes of fears, more clarifying research is needed. Until then Rachman's (1977) three pathway theory provides a useful framework (King et al., 1997a).

3.1.8 Special populations

Special populations are composed of studies where fears were explored in samples that made them special in a way, as such, specially selected samples. Whether it was because the participants were intellectually challenged, visually impaired, exposed to poverty, living in a children's home and had chronic medical conditions or were health impaired.

Muris, Merckelbach, and Luijten (2002c) compared the fears and worries of normal children to those with below average intellectual abilities. Results showed that reduced cognitive capacity seemed to promote ‘early’ fears. A developmental comparison of normal and exceptional children's fears between the ages of 6 and 12, was examined by Derevensky (1979). The participants were individually interviewed and asked ‘What are the things to be afraid of?’ followed by ‘and what else?’ The results were arranged into 8 categories. Younger children expressed more unrealistic fears than older children. The chronologically older mentally retarded children or learning disabled children revealed fears similar to those of younger normal children. Furthermore, the results indicated that the fears of exceptional children were generally found to have a wider range and to be greater in number than those of normal children.

Gifted children’s fears were explored by Derevensky and Coleman (1989). The children were between the ages of 8 to 13 years and the methodology used by Derevensky (1979) was utilised. The findings indicated that gifted children’s (children with an intelligence quotient of 130 and above) fears are consistent with their developmental level, are realistic and display considerable frustration. Furthermore, the fears were found to be similar to those of older normal children as well as to reflect advanced cognitive and social awareness.

The level and structure of fear was explored in visually impaired and normally sighted children and adolescents by Ollendick, Matson and Helsel (1985b) using the FSSC-R. Provision was made for the visually impaired participants to ensure adequate assistance as well as to ensure their understanding of stimulus items and response alternatives. Higher total fear scores were found for the visually impaired than the sighted group, suggesting significant differences with respect to all levels of fear. Differences with regard to content of fear were present. The visually impaired participants were afraid of items depicting potentially dangerous and harmful situations. The normally sighted participants revealed being afraid of psychologically harmful situations. The findings were not surprising to the researchers, since one would expect a visually impaired person to be more fearful in situations in which vision would be an aid or prerequisite to their well being.

King et al. (1990) explored the fears of health impaired children using the FSSC-R. A total of 146 children and adolescents ranging in age form 7 to 18 years participated in the study. The

results indicated that the health impaired children reported a significantly higher number of fears in comparison to the control group of children. These findings indicate that children's self-reports of fears are influenced by health status.

In a study by Burkhardt (2003) the fears expressed by children living in a children's home were explored. Children living in a children's home are removed from their family care as a result of lawful intervention and were thus seen as a special population due to their living arrangements. The number and level of fear was higher for the children living in a children's home in comparison to the results of normative populations. This finding was also applicable to the level of fear on all of the five factors of the FSSC-R.

Children from the lower SES homes can also fall under the category of special population, due to the poverty they experience. Children from lower socio-economic homes were found to list more specific fears (i.e. dope, money and rats) than children from higher socio-economic homes, who were found to list more global fears (i.e. dangerous animals and poisonous insects) in a study by Graziano et al. (1979). The number and level of fear was also found to be higher for children from lower socio-economic homes than those from higher socio-economic homes (Neal et al., 1993; Ollendick, 1983; Ollendick et al., 1985a, 1989, 1991).

Generally research findings indicate that children who fall under the category of special populations tend to be more fearful than the normative population.

3.1.9 Conclusion

Death and danger related fears seem to be most consistently feared amongst these children. Exceptions to this may provide invaluable information with respect to local character and cultural idiosyncrasies. Generally there seems to be a decline in fears as age increases. Some findings have, however, disputed this, especially with respect to socio-evaluative fears (see Tables 1 & 2). Research has often indicated that a five-factor solution is the best conceptual fit. An important finding is that the factor order (ie. the actual order of the factors) differs among studies.

Research has indicated that fears are relatively transitory and that they decrease with an increase in age. There are also changes in the content of fear as a child develops from

imaginary to more realistic fears. Table 3 provides a summary regarding the developmental changes in fear content. The seriousness of fear has also been explored, indicating that excessive fears or fearfulness during middle childhood may place children at risk of the development of anxiety disorders later in life.

The origins of fears was another topic that was reviewed. Rachman (1977) suggested a framework containing two pathways of fear acquisition, direct and indirect. At the moment it seems to provide a useful framework until further clarifying research has been conducted. Lastly fears in special populations have been explored. These referred to populations are populations, which can be seen as special in any way such as participants who are visually impaired or cognitively handicapped. Generally findings indicate that special populations have more fears than the other populations.

Section 3.1. provides information of the fear construct and relevant literature was reviewed.

3.2 Independent variables relating to fears

3.2.1 Age

As previously mentioned age also plays a role in fear assessment. The aspect of age has however, been reviewed under number and levels of fear (3.1.2), the stability of fear (3.1.4), and the developmental changes in fear (3.1.5). Furthermore, Tables 1 and 2 provide a summary of research with regard to number, the level of fear and the respective age groups.

3.2.2 Gender

Differences regarding fear content and gender have been less well-researched than age and when they have been researched, little clarity has ensued (Gullone, 1996). Various content differences have been reported in the past. Some of the results are as follows; for girls these constitute being more afraid of the dark, strange sights, sounds, objects or persons, being kidnapped, robbed or killed, snakes, dirt and animals. The boys were reported to be more afraid of bodily injury, school, failure, nightmares, harm and imaginary creatures (Bamber, 1974; Jerslid & Holmes, 1935a; Lapouse & Monk, 1959).

Gender differences relating to content of fears were found by Lapouse and Monk (1959), however, no difference in the fear content was found by Pratt (1945). Regarding the intensity of fear, differences were found between boys and girls, with girls expressing more intense levels of fears than the boys (Bamber, 1974; Scherer & Nakamura, 1968).

Most studies have found that girls tend to express overwhelmingly more fears than boys (Burkhardt 2002, 2003; Croake, 1969; Dong et al., 1994; Elbedour et al., 1997; Graziano et al., 1979; Gullone & Lane, 2002; Ingman et al., 1997; King et al., 1989; Lapouse & Monk, 1959; Lambert, Knight, Taylor & Achenbach, 1996; Ollendick, 1983; Ollendick et al., 1985a, 1991; Schaefer et al., 2003; Scherer & Nakamura, 1968; Slee & Cross, 1989; Spence & McCathie, 1993). Gender differences can be attributed to the fact that girls more readily express fears since it is more socially accepted for them to be fearful than it is for boys. Boys will thus rather tend to deny fears since it is socially undesirable to be fearful. As such gender role expectations can play an important role in the expression of fears (Dong et al., 1994), with girls being be more willing to admit to fears than boys. The hypothesis being that gender role expectations or orientations play a role in the expression of fear.

Ginsburg and Silverman (2000) investigated this hypothesis and explored the relationship between self-reported masculinity and femininity (gender role orientation) as well as self-reported fears in children with anxiety disorders. The findings showed that masculinity was inversely (negatively) related to overall levels of fearfulness and specific fears (fear of failure and criticism, fear of the unknown and medical fears) on the 5 subscales. Interestingly, in the girls, no link was found between femininity and fearfulness. The above suggest that masculinity may play a role in the development and or maintenance of fearfulness in children. Thus, the hypothesis was only proven in part, since the same does not hold true for femininity.

Females reported significantly more fears than males overall, as well as in all three age categories in a study completed by Slee and Cross (1989). Socialisation effects were proposed as a possible reason for the gender differences apparent. This was also suggested for the findings in a study by Schaefer et al. (2003). Schaefer et al. (2003) applied cluster analysis techniques to the fear survey scores to an American sample between the ages of 7 and 19 years. The results indicated that females were significantly more likely to display a profile consisting of high levels of fear across different fear types than males. Males, on the other

hand, were significantly more likely to display a profile consisting of low levels of fear scores across each fear type. Furthermore, the researchers suggested that gender role expectations may also contribute to the results found.

Spence and McCathie (1993) found that girls expressed more fears than boys, that the most frequently feared stimuli were the same for both boys and girls, as well as remained relatively stable and were mostly related to fears of danger, death and physical injury.

Research by Mellon et al. (2004) indicated that Hellenic girls of all ages surveyed produced a higher prevalence as well as total intensity of fears scores than boys. Furthermore, the girls also expressed higher intensity scores on all sub-scales. The researchers acknowledge that in Greece, the tolerance of fear disclosure may be unevenly distributed across gender and has to do with gender role orientation. Hereby lending further support to the suggestion that gender role orientation plays a role in the expression of fear. Mellon et al. (2004) further reports that in Greece, the term androprepia, meaning male and proper, refers to an attribute to boys that is tantamount to fearlessness. The feminine thiliprepia, on the other hand, connotes a more tender sensitivity. These terms imply differential consequences for divulgence of emotions for boys and girls. Consistent with the above-mentioned, is that boys expressed a lower level of fear in response to the fear of being criticised but a content difference was noted with boys endorsing a higher level of fear than the girls on the criticism and failure factor.

In African children, a lack of gender differences were apparent in the level of fear, being in sharp contrast to the findings of other studies where girls consistently reported a greater fear intensity than boys (Ingman et al., 1999). The lack of gender differences being apparent could be attributed to the fact that in Kenyan children sex segregation in peer groups occurs at a later age than in American children (Harkness & Super, 1985). Further support is provided by the result of the study by Pela and Reynolds (1982) where no sex differences in anxiety for Nigerian children and adolescents were found. Interestingly, gender differences or the lack thereof, are consistent across distinct cultures. No gender differences were found regarding Nigerian boys and girls who revealed similar numbers and levels of fear with no significant differences (Ollendick et al., 1996). This provides further support to the above-mentioned.

In a study by Ollendick et al. (1985a) it was found that girls expressed quantitative and qualitative differences in the intensity as well as structure of their self-reported fears in

comparison to the boys. Childhood fears are found to be more prevalent among girls than boys with girls reporting an average of 13 fears and boys an average of 8 fears.

Ollendick et al. (1996) reported that girls expressed more fears and displayed a higher intensity (level) of fear than boys. This finding, however, was restricted to children from America, Australia and China. Girls expressed a higher level of fear than the boys with respect to all the five factors. In contrast was the lack of sex difference among Nigerian boys and girls who reported similar numbers as well as levels of fear. No gender differences were found on any of the five factors for the Nigerian children.

A contradiction to the finding that girls express more fears than boys is presented by Martalas (1999). She explored the fears expressed by South African preschool children. The results indicated that boys expressed twice as many animal fears (i.e. wild animals, domestic animals insects and sea animals) as girls. The researcher cautioned against generalisations, since the study was limited with regard to number of participants.

The results of some studies indicated no sex differences to be present (Maurer, 1965; Miller, Barrett, Hampe & Noble, 1971; Nalven, 1970; Van Eeden, 1989).

Research has not only indicated that girls report more fears than boys but that their fears were also found to be more intense and disabling. Boys reported similar fears to girls but for the girls socio-evaluative fears were of the same intensity and frequency as the life-threatening fears. It is interesting to note that socio-evaluative fears were more pronounced in Chinese boys, especially preadolescent boys, than boys from Western countries (Dong et al., 1994) where the socio-evaluative fears were also seen (Ollendick et al., 1995).

In a study by Gullone and King (1997), the pattern of fear yielded gender differences on all of the five factors, with girls expressing more fears than boys. Age differences were found on four of the five factors, indicating a general decrease in fear over time.

Conditioning, modelling and instruction are proposed by Rachman (1977) to be the pathways of fear acquisition. As such, it can be expected that parents do play a role in the fear acquisition of the latter two pathways, namely, modelling and instruction. Pickersgill, Valentine, Pincus and Foustok (1999) explored the above-mentioned statement. This was

done by means of correlating girls' fears with parental fears and scores on authoritarianism. The results indicated that independent effects are exerted on the child's fears by fathers' authoritarianism and mothers' fearfulness. Furthermore, it is indicated that greater behavioural over-control by fathers and the greater propensity of the mothers to communicate threatening information, play a role in the girls' fearfulness as a product of mothers' fearfulness and fathers' authoritarianism (Pickersgill et al., 1999).

Another possible explanation for apparent gender difference could be that traditional boys, high in masculinity, might report fewer fears and that traditional girls, high in femininity, might report more fears. This explanation, however, needs more systematic investigation (Ollendick et al., 1995).

Traditional gender roles for females provide them with the opportunity to be more fearful than their male counterparts. Conformity to these roles may influence fear levels in two ways; firstly, by forcing males to confront their fears and thus decrease the actual fear due to a desensitisation process. Secondly, conformity can lead to under reporting fear levels by men in order to protect their self-image and or to avoid censure from others (Pierce & Kirkpatrick, 1992).

The researchers further investigated whether men lie on fear surveys. The results of the fear survey and the measured heart rate linked to the video presentation did not correlate. The study indicates that men underreport their actual fear, since the fear level was found to be lower for the fear survey than the actual heart rate showed. The researchers, however, mention that the heart rate data should be interpreted with caution. In conclusion, the study indicates a discrepancy in fear levels among men and women and explored the effect of traditional gender roles.

The fourth dimension of the Hofstede (1980) model entails cultures which can be positioned as masculinity and femininity. The terminology is explained as follows. Masculinity in a society implies that the men are supposed to be assertive, tough and prioritising material success. The women, on the other hand, should be more tender, modest and worried about the quality of life. The concept of supposedly being modest, tender and worried about quality of life applies to both men and women in a society which stands for femininity.

The dimension of masculinity and femininity has consequences for gender roles of a country or culture, bearing in mind that gender refers to the distinction between men and women. Societal differences between men and women can be seen as society specific whereas biological differences between the two are universal (Hofstede 1980).

Research done by Hofstede (1991, 2000) shows that South Africa, as a country, falls within the Masculinity dimension. The societal norm is thus towards inequality between parental roles. The father is displayed as tough, whereas the mother is tender, supposedly dealing with feelings. The role model parents provide their children with, is that boys should assert themselves, should fight back if attacked, should be hard and should not cry. Girls, on the other hand, should strive to please and be pleasant, be sensitive, should not fight and are allowed to cry.

The aforesaid provides a framework from which one could extrapolate from a South African context to the specific cultures in this study.

In countries which are more masculine the following is often found: men being the breadwinners, inequality between sexes, differences in higher education and the mother having a weaker position in the family than the father (Arrindell, 2000). In South Africa these norms are apparent but during the last few years, changes have occurred with the emphasis being on equality.

In conclusion most studies have found gender differences to be apparent and have ascribed these to a number of factors such as gender role orientations as well as expectations and peer group differentiation. Hofstede's dimensions of culture provides a frame of reference with respect to how individualism, equality and masculinity are related to the expression of fear.

3.2.3 Culture

In the present study, culture is referred to as a social reality and is seen as a group of people who have shared patterns of beliefs, feelings, knowledge and share the same context or environment in which behaviours develop and can be expressed (Yamamoto et al., 1997). The concepts of language and race have relevance to the South African context as result of apartheid policies, which influenced, amongst others, linguistic preferences (Finchilescu,

2005) and also resulted in negative connotations to the word ‘race’ (Seedat et al., 2001). As a result of the above-mentioned the term ‘culture’ is referred to.

The secondary aim of the present study, as previously mentioned, is to contribute to the understanding and the development of fear in order to compile programmes for effective preventative programmes. As such, it becomes imperative to determine which behavioural patterns are universal and which simply reflect idiosyncrasis within their particular settings, groups or countries. Cultural factors play a role in the evolution and maintenance of fears, simply by considering the myths, traditions and stories told.

A good example of the above-mentioned is the study by Tikalsky and Wallace (1988) in which an enormous difference in the number of fears expressed between the Navajo and Anglo samples was found. This was ascribed to the fact that in the Anglo culture, to have many fears is seen as an evil foreboding, whereas for the Navajo culture, expressing many fears is seen as displaying intuition (This study will be reviewed in greater detail later in this section). Furthermore, cultural factors also play a role in indicating the limitations of the theoretical models of fear (Fonseca et al., 1994). A South African example of the above-mentioned can be depicted as follows: In African families the elderly are greatly respected and are seen as living ancestors, sources of wisdom as well as transmitters of cultural values. If a younger person shows disrespect to an elder it is believed ill fortune could befall that person (Bozalek, 1997) and as such plays a role in the fear acquisition process via the information pathway.

In the South African school context it appears that the largest proportion of school-going children is the primary school population. This population is largely made up of the black South African children followed to a lesser extent by the white, coloured and asian South African children (Strauss, Van der Linder, Plekker & Strauss, 1995). In the Stellenbosch area in the Western Cape, 62% of school-going children attend a primary school (Department Sociology, 1995).

It is important to realise that the studies which have been conducted around the world differ not only in language or location but also in cultural variables. These variables can take the form of anything from religious beliefs, housing conditions, literacy levels, child-rearing practices, health and welfare systems, family structure, community support networks, job

opportunities, economic as well as scientific developments, sex roles, ethnic, moral as well as family codes, rhythm of social changes, migratory trends and other ancedents of current behaviour (Fonseca et al., 1994). Cross-cultural studies have demonstrated the importance of taking some of the above-mentioned variables into account (Elbedour et al., 1997; Ingman et al., 1999; Neal et al., 1993; Ollendick et al., 1996; Shore & Rapport, 1998; Tikalsky & Wallace, 1988).

According to Hofstede (1980), culture can be divided into four major dimensions. The first dimension entails power distance, where equality plays a role. The second refers uncertainty avoidance with flexibility being an issue. The third dimension concerns individualism or collectivism, where being alone or together is a factor. The fourth entails the concept of masculinity or femininity, where tough versus tender is a feature. The fifth dimension, which was added at a later stage, refers to long or short-term orientation (Hofstede, 1980, 1991). This was done through large scale surveys which initially included 40, but which were extended to 50 countries at a later stage. The findings of the surveys indicated that several European and North American countries were found to be high on individualism and low on power distance, whereas several Latin American and Asian countries were found to be low on individualism and high on power distance (Hofstede, 1980). A strong European influence can be seen among certain South African cultures, implying that they are high on individualism and low on power distance, but for some cultures the opposite can be true. This indicates that the South African context is a diverse one. It is important to reflect on the fact that Hofstede's survey included mainly IBM management, which in South Africa was predominately white.

Some other studies explored the aspects of individualism and equity with respect to fear expression. The possibility of cultural differences regarding childhood and adolescent fears was examined in 1200 American, Australian, Chinese and Nigerian children and adolescents aged between 7 to 17 years by Ollendick et al. (1996). A positive correlation was found between over-controlled or internalised problems such as fear, anxiety as well as cultural practices such as self control, social inhibition and compliance with social norms, in other words, high power distance and low individualism. It can be deduced that if fear is significantly influenced by cultural or socialisation variables, differences are likely to be apparent among countries such as North America, Australia and England and the collectivist cultures as are found in Africa or China.

As previously reported studies, which were conducted with samples from Western countries depicted similar findings. Thus it was proposed that, based on cultural differences, more fears as well as higher levels of fears could be experienced by children and adolescents from Non-Western cultures than in comparison with their Western counterparts (Dong et al., 1994; Ollendick et al., 1996).

Dong et al. (1994) explored the fears of 825 Chinese children and adolescents between the ages of 7 and 17 years as well as their relation to anxiety and depression. This was done by means of the FSSC-R, Revised Children's Manifest Anxiety Scale (RCMAS) and the Children Depression Inventory (CDI). The Chinese children were of special interest due to the marked cultural difference (Lou, Lew, Hau, Cheung & Berndt, 1990) and educational practices (Chen & Stevenson, 1989).

The results indicated that, contrary to previously published reports, where fear scores decrease with age, the pattern of fear was found to differ due to heightened levels of socio-evaluative fears especially between the ages of 11 and 13 and to a lesser degree between the ages of 7 and 10. Due to the Chinese culture's emphasis on performance, these children scored particularly high on the fear of failure factor. Although the intensity and total number of fears decreased over one year, it was still higher for the 11 to 13 age group, revealing more failure and criticism-related fears (socio-evaluative fears). The most common fears were related to death and danger, consistent with previous findings, but fears of a socio-evaluative nature were more prominent for the Chinese participants. Subsequently a developmental-cultural hypothesis was proposed in order to provide an explanation for the findings (Dong et al., 1995). The above highlights the fact that cultures in which inhibition, emotional restraint and obedience are stressed, this can contribute to an increase in the level of fearfulness.

The structure of children's fears, derived through factor analytical procedures, was also found to differ between cultures. A 5-factor structure of fear; fear of failure and criticism, fear of the unknown, fear of minor injury and small animals, fear of danger and death as well as medical fears was generally reported in studies of Caucasian American children (King et al., 1989; Ollendick et al., 1991) whereas recently a 3-factor structure (Factor 1 - General fears, fears of death, danger and small animals; Factor 2- Fear of the unknown and things that crawl; Factor 3- Medical fears) was reported for African American children (Neal et al., 1993). The absence of school-related fears was an interesting discovery. The absence of the fear of embarrassment

factor for the African American children was of little concern, due to it being the weakest factor for the white children.

In a study by Shore and Rapport (1998), a 7-factor solution was found to be the best conceptual fit for the data. The seven factors were: danger and death, fear of the unknown, worries, anticipatory social, animals, averse social and social conformity. The first three factors are identical or conceptually similar to those previously reported. The analysis entailing the non specific and diffuse items concerning everyday worries contributed to the fourth factor. The last three factors all depicted distinct types of social fear. Factor 5 and 6 of the study were found to be conceptually similar to the factor of fear of failure and criticism from previous studies of the FSSC-R. The item content of Factor 7 depicted children's concerns or fears regarding social aspects and conformity. In conclusion, the first 6 factors were similar to the described factors in previous research regarding the FSSC-R, whereas the last factor, factor 7, was unique.

Elbedour et al. (1997) explored developmental and cultural perspectives by means of a comparison of fears among 430 Israeli Jewish and 435 Israeli Bedouin children. The Israeli Jewish children are encouraged to become independent and to have relationships outside the family context similar to Western children. The Israeli Bedouin children are Moslems, who are raised in an environment where the elders are still of monumental importance. They experience closer relationships with their families.

The results indicated that the Bedouin children reported higher levels of fear and were frightened by a broader variety of stimuli and conditions than the Jewish Israeli children, demonstrating the interaction effect culture has on children's fears and anxieties, as well as how the environment in which a child grows up in can mould the child. The expression of fears and anxieties during childhood and adolescence differ, depending on the cultural context in which a child grows up. The fears reported by Jewish children were fairly similar in intensity and pattern, to those reported by children of Western societies. Gender differences were apparent, with girls reporting higher levels of fear than boys, being consistent with previous findings.

In a study, Ingman et al. (1999) explored the cross-cultural aspects of fears in 852 African children and adolescents. The aim of the study was to compare the level and type of fear in

551 Nigerian and 310 Kenyan children and adolescents based on the FSSC-R with the scores on the adapted FSSC-R which was found to be more appropriate for a sample of Israeli children. Kenya is more influenced by western settlers than Nigeria and thus resembles a western society more than Nigeria does. It was found that Nigerian children expressed higher levels of fear than Kenyan children. The Nigerian children revealed higher levels of fear on all the factors except for the factor of danger and death. An interesting finding reveals that the fear scores for both Nigeria and Kenya were higher than those found in the United States, Great Britain, Australia and China (Ollendick et al., 1989, 1991, 1996), suggesting that Nigeria and Kenya could share a possible denominator. It is however, possible that the difference could be accounted for by the difference in social conditions between Western and African countries. Another important aspect to take into consideration is that there were no significant effects found for the fear of danger and death, indicating that the level of fear for these events does not change across country, religion or age groups. The above-mentioned indicates how intricate the concepts of generalisability and specificy can be with respect to culture.

In continuation with the above, the results of a study on the fears of African American children, Neal et al. (1993) found that many fears transcend race and culture. However, limitations of the study such as religion and class, should be taken into consideration.

In a cross-cultural study by Ollendick et al. (1996), the fears of 300 American, Australian, Chinese and Nigerian children as well as adolescents, a total of 1200 participants, were explored. The participants were compared in the dimensions of number, content, pattern and level of fears. It was hypothesised, on the basis of cultural differences, that the level of fear would be the highest for the Nigerian participants upon comparison to the American and Australian participants, but this would not apply to the Chinese participants. Furthermore, it was predicted that boys would reveal a lower level of fear and that there would be an age-related decline in fear. The results confirm the hypothesis and indicate that the highest level of fear was found in Nigerian children followed by Chinese children, who in turn had higher levels of fear than Australian and American children, who did not differ from one another.

Differences in the findings indicate that cultural aspects influence the expression of fear among children. Examples being the following findings: Girls reported more fears than boys but only in America, China and Australia. Nigerian boys and girls were found to display

similar fears. Younger children displayed more fears and higher levels of fear but this was only true for the American and Australian youth. Chinese children's differences were consistent with those reported by Dong et al. (1994). Nigerian participants reported no age related declines. Nigerian and Chinese participants expressed more socio-evaluative fears as well as safety related fears than their American and Australian counterparts, whereas the most common fears reported were related to death and danger. Some of these were country specific. The results were interpreted within the respective cultural context, suggesting that certain cultures can serve to increase the level of fear.

In a study by Shore and Rapport (1998) the findings indicate that culture may mediate the expression of fears. The ethno-cultural variations of children's fearfulness in Hawaii were compared by means of the Revised Fear Survey Schedule for Children (FSSC-HI). The results showed differences among the Caucasian children and children of Asian, Filipino and Hawaiian origin with the Caucasian children scoring significantly lower in fear prevalence and intensity. The Caucasian children also displayed the lowest level of fear on all the factors. These results are in accordance with the findings of Neal et al. (1993) that ethno-cultural factors can affect the underlying dimensions of children's fearfulness. This suggests that beliefs and attitudes concerning socialisation, as well as conformity, are conveyed to children by specific child rearing practices specific to a particular ethno-cultural group.

In brief, one could say that cultural aspects do differ and thus contribute to the differences apparent in the expressions of fear. The fear content in the study by Shore and Rapport (1998) was however, found to be similar to the findings of previous reports suggesting that the most troubling fears in children are invariant across age, gender and cultural background.

Showing fear is often frowned upon, especially in contemporary Western culture. To be brave is what is striven for, especially for boys. Furthermore, parents express concern about children who are unusually fearful. This phenomenon, however, is not universal.

The culture and structure of children's fears were explored by Tikalsky and Wallace (1988). The data was collected by the means of two samples each consisting of 92 children between the ages of 8 and 10. The measuring instrument utilised was the 81-item Louisville Fear Survey for Children, which is designed for children between the ages of 4 and 18. The aim was to further explore the effect culture has on the dimensions of children's fears as well as

the strength and nature of such dimensions. Results indicated that Navajo children tended to display more unrealistic fears than Anglo children. The explanation provided for this phenomenon suggests that children learn to fear different things and that fear has different meanings for the Navajo and Anglo children. For Anglo children being fearful, is not seen as desirable. In contrast, for the Navajo children to express a lot of fears is seen as a sign of perceptiveness. Thus the number of fears tends to be exaggerated for Navajo children and for Anglo children it is surpressed. The results of this study suggest that fear frequencies may be partly a function of culture.

There seems to be a common denominator in the expression of fear and as such a certain degree of a 'culture of childhood' (Yamamoto, Soliman, Pearson & Davies, pg 861, 1987) does exist, meaning that children, in whatever cultural context they grow up in, share perceptions and experiences of more or less upsetting life events. This statement is supported by the finding that the content of fear is similar across countries (Neal et al., 1993; Shore & Rapport, 1998). This has also been highlighted in the afore-mentioned studies.

Yamamoto et al. (1987) observed a trend where the closest associations were found to arise from Anglo-Saxon roots, urbanisation and industrialisation. This supports the results that the levels of fears were found to be similar among children from America, Australia and Great Britain, in other words, westernised countries with similar cultural values and that the level of fear was higher in children from countries such as China, Nigeria and Kenya (Ingman et al., 1999; King et al., 1992; Ollendick et al., 1989, 1991, 1996). However, it is important to bear in mind that although there are similarities across cultures in the content of fears, this does not suggest that the differences in level, number as well as content of fears is not significant.

The fears of over 3000 children and adolescents between the ages of 8 and 16 were explored by means of the FSSC-R in a cross-sectional Australian study by King et al. (1989). The findings show an age-related decline in fears, with girls expressing more fears than boys. The latter finding can be challenged since girls and boys may have reported their fears according to sex role expectations rather than revealing genuine differences (Graziano et al., 1979).

Another finding was that the most common fears (content of fears) displayed were similar to those reported by American adolescents and children (Ollendick et al., 1985a). The geographical location and its influence on fears, was also explored. Children living in urban

areas reported a slightly greater number of fears than rural children (King et al., 1989). This study was compared to the study of adolescents and children from the United States of America (Ollendick et al., 1985a). It was further found, that the expressed fears of the children and adolescents from both countries seemed remarkably similar, qualitatively and quantitatively, with the fear of danger and death being predominant. The similarity could be attributed to similar conditions, namely, similar values, culture with the common denominators being that both are westernised as well as English speaking countries.

In a study by Ollendick et al. (1995), it was found that the differences in content, number and intensity of fears reported between girls and boys coincided with results from previous studies including those in Australia, China, Great Britain and the United States (Dong et al., 1994; Ollendick et al., 1989, 1991). The result of girls reporting more fears than boys, was obtained despite differences in the cultural and socialisation influences. Cultural and development factors do, however, influence the observed gender differences because the expression of socio-evaluative fears was more prominent in Chinese boys than in boys from western countries. A limitation of this study was that the data was solely obtained by means of self-report.

Similar results between the United States and Australia such as acceptable internal consistency, reliability and validity as well as a stable factorial structure across samples and nationalities were apparent (Ollendick et al., 1989). This can be attributed to the fact that to a large extent the children from these countries share a common cultural heritage.

As previously mentioned, the role of culture with respect to generalisablity and specifity of expressed fears is intricate and it appears as if expanded research results are still necessary for the clarification of the role of cultural variables in the expression of childhood fears.

For the purpose of the present study, culture is defined in terms of the main representative cultural communities present in the Stellenbosch area, namely: black, coloured and white South African children.

3.2.4 Socio-economic status

Socio-economic status (SES) is an important variable in the expression of children and

adolescent's fears. Research has shown that children and adolescents from different social strata show differences in the content of the fears they are experiencing (Fonseca et al., 1994). Children from lower socio-economic status homes express fears of items related to such things as violence, rats, and cockroaches, while children originating from higher socio-economic homes endorse fears of stimuli such as heights, accidents, dangerous animals and poisonous insects, tending to use more generic categories in place of specific animals (Angelino et al., 1956; Fonseca et al., 1994; Graziano et al., 1979; Nalven, 1970).

In a classic study by Jerslid and Holmes (1935b), children from lower socio-economic status homes endorsed fears of a supernatural and remote nature, as well as of animals. The children from higher socio-economic homes expressed fears of danger and of noises.

Graziano et al. (1979) also found that the children's fear content among socio-economic status varies. Lower socio-economic-level children also tend to endorse specific fears in contrast to children at higher socio-economic-level list who express more global fears. Furthermore, it can be said that the fears of lower socio-economic-level children indicate that they are likely to feel more hostile to their immediate environment than higher socio-economic-level children. This statement, however, needs further research.

The differences in fear content among different socio-economic strata, however, may be a function of quite different environmental experiences (Ollendick et al., 1985a). In Nalven's (1970) study the suggestion was made that the lower socio-economic-level children may perceive their immediate environment as more hostile than the higher socio-economic-level children. Other possible explanations were that differences in education and understanding could account for the findings. This refers to the findings in Nalven's (1970) study where lower socio-economic class children tended to list specific animal fears rather than generic groupings like the higher socio-economic scale children.

A contradiction to the above-mentioned is a study where the only difference found for children in an Indian socio-cultural setting was in the frequency (number) of fear responses. Results indicated a universe relationship between the number of fears reported by the children and their socio-economic level. No content discrepancies were apparent in the expression of fear. Possible explanations for the results were the differences in parental roles in the development of fears in children and the fact that the children all attended the same school

irrespective of socio-economic status, being exposed to the same environment (Sidana, 1975).

Research has shown that children's fears are more intense (level) and frequent (number) in children of lower socio-economic status than children from higher socio-economic status (Neal et al., 1993; Ollendick, 1983; Ollendick et al., 1985a, 1989, 1991). Lapouse and Monk (1959) found that the number of fears endorsed by black and poorer children were higher. In conclusion it can be said that lower socio-economic children tend to have more fears than higher socio-economic children (Croake, 1969). This is especially applicable to the fears related to danger, death and safety. The discrepancies being observed as a result of to socio-economic class suggest a socially determined component with regard to content and level of fear. Also, research by Lambert et al. (1996) indicated that teachers rated lower socio-economic-level children as having significantly more problems than higher socio-economic-level children. Another important aspect to realise is that socio-economic status and place of residence may be confounded in certain studies (Fonseca et al., 1994). Socio-economic status can have an influence whether directly or indirectly on the development of a child. With respect to direct influence, it can cause a constraint on availability and access of physical facilities as well as a restriction of opportunities (Parameshwaran, 1964). Parents' personalities and consequently their attitudes as well as the relationship with the child can influence development indirectly (Havinghurst quoted in Sidana, 1975; McGuire, 1952). Various aspects of a person's personality can also be influenced by SES (Harrower, 1934; Neff, 1938).

SES seems to play a role in the expression of fear with children from lower SES being more fearful than children from higher SES. This holds true especially with fear of danger. Caution is also expressed when interpreting the result to bear in mind that SES and place of residence may be confounded influencing the results.

In the present study SES is not taken into consideration although the participants came from various socio-economic levels. This needs to be borne in mind when interpreting the results.

3.2.5 Conclusion

Research findings indicate that age plays a role in fear expression. As a child develops there is change in the content of fear from imaginary to more realistic fears. The amount of fears also

seem to decrease as there is an increase in age although there are exceptions to this finding especially with regard to socio-evaluative fears. Gender differences indicate that there are some contradictions to the expression of fear among girls and boys. Generally though, girls seem to be more fearful than boys. This phenomena is often attributed to the socialisation process. Research findings indicate that culture plays a role in fear profiles. It is difficult in the South African context to determine to what extent culture and SES contribute to the expression of fears.

The independent variables of SES and age were not controlled for in the present study, but their relevance to fear seems important hence their inclusion.

3.3 Overview of assessment tools

Information regarding fears has been obtained by various assessment methods and across all age groups. Research regarding normative fears spans one century and begins with the work of Hall (1897) who administered a questionnaire to over a 1000 adults, asking them to provide a detailed description of their fears. The FSSC-R, a self-report instrument, is and has contributed to a large extent to the accumulation of normative information concerning childhood fears. This body of work includes information about the content, number, level and patterns of children's fears determined by age, gender and how these patterns may vary across countries and cultures such as the United States, Australia, Great Britain, China, Nigeria, Kenya and South Africa (Burkhardt et al., 2003; Ingman et al., 1999; Ollendick & King, 1991; Ollendick et al., 1985a, 1989, 1996).

Over the past century various assessment tools and methodologies have been administered in order to obtain data regarding children's fears.

Amongst others, these include the following:

- **Observational investigations** (Jerslid & Holmes, 1935a; Jones & Jones, 1928; Scarr & Salapatek, 1970; Valentine, 1930).

- **Parent/Teacher report** (Bouldin & Pratt, 1998; Cummings, 1944; Draper & James, 1985; Jerslid & Holmes, 1935b; Jones & Borgers, 1988; Lapouse & Monk, 1959; Muris &

Merckelbach, 2000).

- **Child interviews** (Bauer, 1976; Caroll & Ryan-Wenger, 1999; Derenvsky, 1979; Dibrell & Yamamoto, 1986; Eme & Schmidt, 1978; Jerslid & Holmes, 1935a; Lahikainen, Kirman, Kraav & Tamailu, 2003; Maurer, 1965; Muris, Merckelbach, Ollendick, King, Meesters & van Kessel, 2002a, Muris et al., 2000b; Slee & Cross, 1989; Sidana, 1975).

- **Fear list investigations** (Angelino et al., 1956; Muris et al., 2002a; 1997a; Muris, Merckelbach, Meesters & Van Lier, 1997b; Muris et al. 2000a; Nalven, 1970; Pratt, 1945).

- **Self-rating checklists** (Bamber, 1974; Burkhardt et. al, 2003; Burnham & Gullone, 1997; Caroll & Ryan-Wenger, 1999; Croake, 1969; Dong et al., 1995; 1994; Elbedour et al., 1997; Ginsburg & Silverman, 2000; Gullone & Lane, 2002; Gullone & King, 1992, 1993, 1997; Gullone et al., 2001, Ingman et al., 1999; King et al., 1989; Lane & Gullone, 1999; McCathie & Spence, 1991; Mellon et al., 2004; Muris, Merckelbach, Mayer, van Brakel, Thissen, Moulaert & Gadet, 1998b; Muris, Schmidt, Engelbrecht & Perold, (2002b); Muris et al., 1997b, 1998a, 2002a, 2000b, 2003; Neal et al., 1993; Ollendick 1983; Ollendick et al., 1985a, 1985b, 1989, 1991, 1995, 1996; Ramirez & Kratochwill, 1990; Schaefer et al., 2003; Scherer & Nakamura, 1968; Slee & Cross, 1989; Spence & McCathie, 1993; Tikalsky & Wallace, 1988; Van Eeden, 1989; Westenberg et al., 2004).

- **Projective techniques** (Caroll & Ryan-Wenger, 1999; Koppitz, 1968; Martalas, 1999; Poster, 1989)

3.3.1 Observational investigations

One of the first observational investigations examined the specific fear of a snake among young children (Jones & Jones, 1928). A more comprehensive laboratory-based observational (in vivo) study was conducted by Jerslid and Holmes (1935a), with research problems such as organisational logistics. The results indicated an age-related increase in fears relating to self-consciousness, including failure, ridicule and social situations as well as a decrease in fears relating to specifically named imaginary creatures and certain animals. Observational investigations were found to be limited in various aspects such as sampling (Valentine, 1930)

and the focus of fear-arousing stimuli (Jerslid & Holmes, 1935a). Despite the problems encountered, research provided early insights into fear patterns as well as fear arousing stimuli were noted. The need for greater methodological rigour was acknowledged and searched for.

3.3.2 Parent/Teacher reports

Assessing children's fears via third party reports from parents (Lapouse & Monk, 1959) and or teachers (Cummings, 1944, 1946) was a method more frequently used. It became apparent that mothers tended to underestimate children's fears in comparison to reports by the children themselves, especially with regard to the number of fears. This may be due to older children's ability to mask or 'fake' their emotions (Lapouse & Monk, 1959). Thus it is important to interpret results obtained via parent or teacher reports with caution especially where older children are concerned (Gullone, 2000). Muris and Merckelbach (2000) interviewed parents in order to obtain information regarding the severity of childhood. An interesting discovery revealed that the findings correlate to those of an earlier study by Muris et al. (1999), where the children were the informants. The conclusion being that no underestimating by parents of the severity of childhood fears was apparent, but it is important to bear in mind that the samples for each of these studies are not comparable with respect to the age groups and SES.

In another more recent study by Bouldin and Pratt (1998), the Fear Survey Schedule for Children II (FSSC-II) (Gullone & King, 1992) was modified and administered as a parent report in the investigation of children's fears between the ages of 3 and 9 years. Gender differences were found to be in accordance with previous research with respect to the overall level and specific types of reported fears (Gullone & King, 1992; King et al., 1989; Ollendick, 1983). Gender differences could, however, be ascribed to parents reporting in accordance with sex-role expectations rather than actual differences in fear responses. Age related changes were present as well. The recommendation for future research was to address the need to investigate parental reports of fears in direct comparison with self-reports by children, especially for those ages where reliable data can be obtained for children. The potential usefulness of this modified schedule for assessing fearfulness in children was acknowledged (Bouldin & Pratt, 1998).

3.3.3 Child interviews

Another method in order to obtain data regarding children's fears was by conducting interviews with children (e.g. Derevensky, 1979; Jersild & Holmes, 1935a; Maurer, 1965, Slee & Cross, 1989). Differences in fear content became clearer with animal fears consistently featuring among younger children (Derevensky, 1979; Maurer, 1965), fears of imaginary creatures and darkness were found to be prominent between the ages of 6 to 10 (Bauer, 1976; Derevensky, 1979; Maurer,1965) and an increase of fears relating to bodily injury in later years (Bauer, 1976) was apparent.

In a study by Lahikainen et al. (2003) children were interviewed by using two methods: a semi-structured interview based on the question, 'What things are you afraid of?' and picture aided interviews, which were based on the FSSC-R. The results from the semi-structured interviews demonstrated that young children are capable of expressing a much wider range of fears, such as television programmes than had been assumed previously. The results of the picture-aided interviews revealed more fears related to social relations than seen in comparison to the semi-structured interviews.

3.3.4 Fear list investigation

Another methodology, fear list investigation, was to ask children simply to list their fears (Muris et al., 1997a, 1997b, 2000a). Children were provided with a blank piece of paper and asked, 'What do you fear most?' Following this they were invited to describe several characteristics of the most intense fear. They were also asked to provide details about the intensity of the fear and to rate this on scale of one to ten from 'not at all' to 'very much' (Muris et al., 1997b).

3.3.5 Self-rating checklists

Fear survey checklists have been most commonly used over the past years to assess children's fears. This is not surprising because psychometrically validated scales have many advantages over other methods and additionally they are inexpensive to administer and convenient. They enable the identification of the number of extreme fears, intensity and content of fears. The data is also comparable across different subject groups enabling comparisons across age and

development (Gullone & Lane, 2002). In recent years the Fear Survey Schedule (FSS) has become the exclusive assessment tool with a few exceptions (Gullone, 2000). This has largely resulted in a shift of focus from examining fear itself to evaluating the validity of the FSS. Questions have been raised regarding what the fear survey schedules are really measuring (McCathie & Spence, 1991; Ollendick & King, 1994) and as such have questioned the validity of the fear survey schedules (Gullone & Lane, 2002). Other examples of self-report schedules are the Louiseville Fear Survey, Spence Children's Anxiety Scale (SCAS; Spence, 1998), Screen for Child Anxiety Related Emotional Disorders (SCARED; Birmaher, Khetarpal, Brent, Cully, Balach, Kaufman & McKenzie, 1997) and the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978).

3.3.6 Projective techniques

Information regarding fears can also be obtained by projective techniques. These techniques have certain advantages, since they are not language dependent and the researcher's role is diminished. They were found to be effective and valuable assessment tools for assessing a person's internal feelings and thoughts such as anxiety (Poster, 1989). Human figure drawings is one of the most commonly used techniques in order to assess children's feelings and intentions (Koppitz, 1968). The Goodenough-Draw-A-Man test (DAP) is an example of a projective technique, which is used quite often. Research conducted by Caroll and Ryan-Wenger (1999) found high correlations to exist between anxiety scores, the number of fears and the emotional indicators obtained from the human figure drawings of children aged 8 to 12.

3.4 Fear Survey Schedule

3.4.1 History of the Fear Survey Schedule for Children

A wide variety of procedures have been used in the past century in order to investigate children's fears, ranging from observing children in their natural environment (Jerslid & Holmes, 1935a), interviewing the children's parents or the children themselves (Nalven, 1970; Pratt, 1945), to self-report instruments.

A number of self-report instrument are available for fear assessment such as the Revised

Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond; 1985), the Multidimensional Anxiety Scale for Children (MASC; March, Parker, Sullivan, Stallings & Conners, 1997) and the Screen for Child Anxiety Related Emotional Disorders (SCARED; Brimhamer, Brent, Chiappetta, Bridge, Monga & Baugher, 1999). However the most commonly used method for assessing fear has been the Fear Survey Schedule (Gullone, 2000), which has been predominately incorporated in normative fear research due to the research advantages (Lane & Gullone, 1999).

The advantages of self-report instruments such as the Fear Survey Schedules are that they are flexible, cheaper, time-effective, easy, convenient, can cover a large number of items, provide information on the intensity of fears and can be administered to a large range of ages (Fonseca et al., 1994) and are convenient (Lane & Gullone, 1999). They enable the identification of the number of fears, intensity and content of fears (Gullone & Lane, 2002). Furthermore they may also be useful in helping to assess a child's level of fear and anxiety and as such the number of extreme fears. Self-report ranking scales are also important in that they can be employed as therapy outcome measures as well as epidemological instruments (Gullone & Lane, 2002; Muris et al., 1998a). The fear survey schedule can also be objectively scored, minimising any possible influence by assessor bias (Lane & Gullone, 1999). Furthermore, data obtained through the use of validated schedules are highly comparable across different subject groups, enabling age and developmental comparisons (Gullone & Lane, 2002).

The fear survey schedule for children (FSSC) was developed by Scherer and Nakamura (1968) upon modification of Wolpe and Lang's (1964) adult fear schedule. The adult fear schedule was originally devised by Lang and Lazovick (1963) for research use. Scherer and Nakamura (1968) developed the fear survey schedule for children with the cognitive and verbal abilities of a young child in mind, in order to obtain a measure of fear. An attempt was made to develop a fear scale for children for the assessment of fear in which the items are grouped into sub-scales which were selected on a conceptual basis, similar to that of the Wolpe and Lang (1964) Fear Survey Scale. An 8-factor solution was found to be most appropriate and comprised of the following: Fear of failure and criticism, major fears, minor fears-travel, medical fears, fear of death, fear of the dark, home-school fears and miscellaneous fears. The scale consisted of 80 items and each item was rated on a 5-point scale of 'none', 'a little', 'some', 'much' and 'very much'. The FSSC was administered by Scherer and Nakamura (1968) to children between the ages 9 to12. Research indicated no age

differences, but gender differences were found with girls scoring higher in intensity and prevalence than boys.

The fear survey schedules, however, have been predominantly incorporated in normative fear research due to their advantages (Lane & Gullone, 1999). The difficulty encountered with the fear survey schedule for children from Scherer and Nakamura (1968) was that it lacked normative data, test-retest reliability and information about its construct validity (Ollendick, 1983).

Ollendick (1983) revised the FSSC, which is a self-report instrument, to enhance the validity and reliability with younger children as well as with children who had intellectual disabilities. One of the changes made meant that the individual items were not rated on a 5-point scale anymore but on a 3-point scale (none=1, some=2 and a lot=3). The reason being was the concern that young children might become confused by a 5-point scale. This scale became known as the Fear Survey Schedule for Children Revised (FSSC-R). However, specific items on the scale remained unchanged. The age group for which the FSSC-R could be appropriately used is between the ages of 8 to 16. Categories pertaining to fear measurement are the same for the FSSC as well as the FSSC-R. These categories comprise of school, home, social, physical, animal, travel, classic phobia and miscellaneous (Fonseca et al., 1994). For the FSSR-R, a five-factor solution was found to be most appropriate and was derived by means of factor analysis. It consists of the fear of failure and criticism, fear of the unknown, fear of injury and small animals, fear of danger and death and medical fears (Ollendick, 1983). Conceptually the five-factor structure is similar to that of Scherer and Nakamura (1968). Research has shown that the factor structure is fairly robust across gender, age and nationality (Ollendick et al., 1989).

3.4.2 Research findings with regard to reliability and validity

In a study by Ollendick (1983) the reliability and validity of the revised fear survey schedule for children was determined. Results indicated that the FSSC-R possessed a high internal consistency, high test-retest reliability as well as having acceptable stability over time. Additionally, it was found to discriminate adequately between normal and clinical samples, having acceptable convergent and discriminant validity and a meaningful factor structure.

Further studies reiterated the above mentioned findings with respect to internal consistency test-retest reliability and construct validity (Gullone & King, 1992; Ollendick et al., 1985a, 1989). In a study by Ollendick et al. (1996) results indicated high internal consistency estimates for American ([FP1]α= 0.95), Australian (α= 0,96), Chinese (α= 0,96) and Nigerian (α= 0,95) children and adolescents. The test-retest reliability estimates have been repeatedly demonstrated across varying intervals of time. Research has demonstrated that when the scores are elevated, they are associated with heightened levels of anxiety and depression (Dong et al., 1994; Ollendick et al., 1991) and with external locus of control orientations and low self-concept (Ollendick, 1983). It was found to be useful with the identification of fears in normal children as well as differentiating among anxiety disorders in children (Ollendick et al., 1989). The scores of the FSSC-R were demonstrated to be inversely (negatively) related to self-concept as well as internal locus of control but directly (positively) related to trait anxiety (Ollendick, 1983). Furthermore, the FSSCR has been shown to be a useful research instrument in countries very different from the one it was originally developed for (Fonseca et al., 1994), and is thus cross-culturally suitable.

The fact that the development of standarised fear survey schedules has substantially contributed to the knowledge of normative fear is undisputable. Recently, however, questions have been raised about what the fear survey schedule is actually measuring (validity) (Gullone & Lane, 2002).

In conjuction with the above-mentioned, it is imperative to note, however, that the item content of the FSSC-R has not been changed since it was originally developed by Scherer and Nakamura (1968). Consequently the content validity needs to be revised in order for further normative studies to provide an accurate and comprehensive account of children's fears (Gullone & King, 1992). In a study by Gullone and King (1992), this was addressed by testing a second revision of the FSSC-R. Certain items were deleted or reworded and new fear stimuli as well as situations were added. These new items entailed more recently occurring and socially significant events such as nuclear war and AIDS, which could be likely foci of children's fears. Items displaying low internal consistency were omitted. The three-point scale was also changed, from 1= not scared to 3= very scared. The resulting FSSC-II contained 75 items, 28 from the original scale, 19 reworded versions and 28 new items. Thus it differed quite substantially from the FSSC-R (Gullone & King, 1992). The revised FSSC-II was administered to a large sample of Australian children aged 7-18 years in order to investigate

the psychometric properties. This revision of the FSSC-R proved to have sound psychometric properties such as good reliability, sound validity and a five-factor structure nearly identical to the one reported in the FSSC-R, as well as being able to investigate normative fear changes from childhood to the end of adolescence (Burnham & Gullone, 1997).

Burnham and Gullone (1997) adapted the FSSC-II to suit an American context and explored the factor structure as well as age and gender differences. Data was collected in two phases. A pilot study was conducted during Phase I and entailed administering the FSSC-II with 13 reworded fear items and served as a trial run for the fear scale in the United States. This resulted in two more fear items being modified. The American version of the FSSC-II consisted of 59 original fear items and 15 reworded items, which was then re-administered by Burnham (quoted in Burnham & Gullone, 1997) to a sample of 720 children and adolescents ranging from grades 2-12. The latter was Phase II. Results indicated that the FSSC-II is valid for the assessment of normal fears in children and adolescents from the United States.

In 2005 Burnham added 20 contemporary fear items to the American version of the FSSC-II. These include items such as ‘terrorist attacks’, ‘being raped’, ‘having to fight in a war’, ‘gangs’, and ‘drive by shootings’. The scale was renamed the American Fear Survey Schedule for Children (FSSC-AM). The factor structure was determined and Factor I represented the fear of danger and death, Factor II represented the fear of the unknown, Factor III entailed school/social stress, Factor IV represented animal fears and Factor V entailed the fear of failure and criticism. A pilot study was undertaken in order to test changes in item wording to suit the American cultures as well as to complete item analysis. Item-total correlations of less than 0,40 and percentage of endorsement of the item was used as a criteria for determining whether an item should be deleted. After this the actual study proceeded. Data was collected and principal component analysis with varimax rotation was conducted. Results indicated that the ten most common fears in part were comprised of the new contemporary items. This suggested that these items reflect societal concerns of the participating youth. Gender and age differences were apparent across the fear intensity scores, with girls reporting more fears than boys. This finding has often been ascribed to as a response to gender role expectations and/or as the result of the socialisation process (Gullone, 1999).

Burnham (2005) also postulated that a genuine level of fear among both girls and boys contributed to the higher level of fear endorsement found in the study. This was substantiated

with the fear of being raped, which was overall the most highly endorsed item for the girls, being a fear rather than a role response expected form girls. Furthermore, items such as ‘drive-by-shootings’ and ‘someone dying in my family’ should not be justified by gender role expectations and should rather be seen as items reflecting actual fear. Generally the results indicated a decrease in fears as age increases but this was not applicable to the animal fears factor, where an increase in fears in the 15-to18-year adolescents was documented. This seems a fairly unique finding.

In a study by McCathie and Spence (1991) criticism concerning the validity of the data yielded by the FSSC-R was explored. They administered the FSSC-R (Ollendick, 1983) to children between the ages of 7 and 13 with standard instructions as well as administering an adapted version of the FSSC-R (Fear Frequency and Avoidance Fear Survey Schedule, FFASSC) to the same students. The adapted version requested two responses for each respective item: ‘How often do you worry or have frightening feelings about the respective item-Never, sometimes and every day’ and ‘how much do you have to stop doing things or avoid situations, because of your fear of the respective item?- ‘Not at all, a little and a lot?’ The results indicated that no significant differences were found between the FSSC-R and FFASSC responses. The findings actually indicated that the 15 most common fears identified by the modified version (FFASSC) were very similar to those reported in previous research utilising the original FSSC-R (e.g. Ollendick, 1983; King et al., 1989).

McCathie and Spence (1991) argued that children tend to respond to the fear questionnaire items according to their affective responses to the image or thought of the stimulus situation rather than giving their actual fear responses. Furthermore, the researchers speculated about the possibility that generally, the young age of the children predicted their adequate comprehension of instructions. In conclusion, they said that the question remains as to what the FSSC-R is measuring. In other words, there remain to be concerns regarding the validity of the FSSC-R and further research is needed to clarify this concept. Their recommendations for further research included the examination of cognitive and avoidance behaviour aspects of fear and the use of self-monitoring, as a means of exploring the frequency of fearful thoughts and stimuli.

The discriminant validity of the FSSC-R, RCMAS and STAIC-M was examined in a study by Perrin and Last (1992). Previous studies have not yielded a consistent pattern of differences

upon comparison of anxious and non-anxious children. In this study the discriminant validity was examined by comparing clinically referred samples of boys with an anxiety disorder or ADD/ADHD with a community sample of never psychiatrically ill boys. Findings indicated no differences with respect to the FSSC-R and thus the discriminant validity of the FSSC-R is not supported. It is possible though, that ADHD and anxious boys are too similar for differences to be detected. The most plausible explanation seems that the FSSC-R displays poor discriminative validity for clinically anxious boys. This study's sample consisted only of males and thus the findings cannot be generalised.

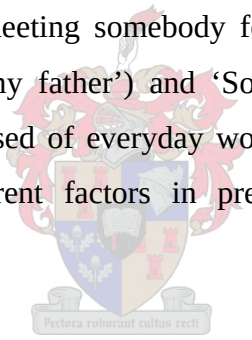
Furthermore, a diagnostic interview was conducted and used as a yardstick to measure anxiety. This could have be done by means of using cut-off scores on measures. This study highlights the importance for additional research into the clinical utility of the above-mentioned instruments as well as the importance of multi-method assessment in the identification of anxiety-disordered children. Previous research by Ollendick (1983) found the FSSC-R to discriminate children with school-phobia from normal's. In a study by Muris et al. (1998a), results indicated that although the FSSC-R has proven to be successful in assessing general fearfulness in children and that it can be used to measure the efficacy of a treatment, it seems to be less useful in diagnostic processes where it is required to differentiate among various anxiety disorder subtypes in children. The afore-mentioned highlights the conflicting result with regard to discriminant validity of the FSSC-R and as such indicates a need for future research regarding this matter.

Another attempt to construct a scale, reflecting more current fears and concerns of youth was done by Shore and Rapport (1998). The FSSC-R was first revised during a pilot phase, where the existing items were evaluated for their potential relevance and new items were generated. An item pool was generated and administered. Items were analysed and nominated to constitute to the FSSC-HI. This scale was then administered. In order to determine convergent and divergent validity, the RCMAS was also administered. Factor analysis was done by means of a principal components analysis with an orthogonal rotation.

The following changes were made to the FSSC-R. Firstly, 14 new-items were added, which included 'being kidnapped', 'being killed or murdered', 'myself dying', 'drugs', 'AIDS', 'being raped', 'nuclear war', 'storms and floods', 'being chased or followed', 'sharks', 'family member dying', 'gangs', 'being home alone' and 'shaming my family'. Secondly,

nine items were deleted. These included the following; ‘riding in the car’, ‘talking on the telephone’, ‘cats’, ‘ants or beetles’, ‘getting car sick’, ‘having to stay after school’, ‘Russia’, ‘riding on the train’ and ‘getting a hair cut’. Thirdly, 20 items were reworded and fourthly the items ‘closed places’ and ‘elevators’ were combined into one item. These changes resulted in a modified version of the FSSC-R containing 84-items. The scale is known as the FSSC-Hawaii (FSSC-HI).

The reliability and validity of the FSSC-HI was examined in an ethnoculturally diverse sample of 385 Hawaii school children aged 7 to 16 years. The researchers conducted a factor analysis and investigated solutions ranging from three to eight factors. The psychometric properties were found to be largely comparable with those of the FSSC-R. A 7-factor solution was found to be the best conceptual fit for the FSSC-HI. These factors ‘Fear of Danger and Death’, ‘Fear of the Unknown’ and ‘Animal Fears’ were highly similar to those found for the FSSC-R (Ollendick, 1983). A further three factors were concerned with social fears including ‘Anticipatory Social Fears‘ (e.g. ‘meeting somebody for the first time’), ‘Aversive Social Fears’ (e.g. ‘getting punished by my father’) and ‘Social Conformity Fears’ (e.g. ‘being teased’). The seventh factor comprised of everyday worries (e.g. ‘getting a bee sting’) and was associated with several different factors in previous research studies, suggesting instability.



Research by Muris and Ollendick (2002) further examined the reliability and validity of the FSSC-HI in a large group of Belgium adolescents (n = 551) aged 12-19 years. Principal components analysis with direct oblimin was conducted. Additionally, confirmatory factor analysis was conducted to help determine the number of factors that would best fit the data. A five-and seven-factor model were both found to provide satisfactory fits for the structure of the FSSC-HI. Internal consistency was found to be good being applicable to both the five- and seven-factor solution. Research indicated that the FSSC-HI scores correlated in a meaningful way with scores on alternative measures of childhood anxiety (convergent validity). Furthermore, a substantial number of the ‘new’ fear items were found to rank high in the top 10 of the most common fears, namely; AIDS, being killed or murdered, family member dying, being raped, nuclear wars, being kidnapped and myself dying. This highlights the significance of adding contemporary, potentially threatening stimuli and situations to childhood fear measures.

The structure of the FSSC-HI was explored by means of a confirmatory factor analysis. Previous studies have relied on exploratory factor analysis (e.g. Ollendick, 1983; Shore & Rapport, 1998). According to several authors (e.g. Fabrigar, Wegenar, MacCullum & Strahan, 1999) the methods used in exploratory factor analysis allow the investigation of adequacy of different hypothetical models that may underlie one set of items. The most notable difference between the five- and seven-factor model was that the factor 'Fear of Failure and Criticism' (five-factor solution) was divided into three 'separate social' fear factors (seven-factor solution). The researchers suggest that the five-factor solution is more comparable to results of previous studies and therefore better suited to conducting cross-cultural research. A limitation of the study by Muris and Ollendick (2002) is that it did not include younger children. Meanwhile the results indicate that the FSSC-HI is a reliable and valid index of contemporary childhood fears.

Muris et al. (2002a) further tried to assess what the FSSC-R is really measuring (validity). Three different methods were administered to assess fears on the Danger and Death factor. The prevalence was assessed by the standard FSSC-R procedure, the fear list procedure and lastly, by actual occurrence or prevalence of these fears in the past week using the diary method. Results showed that danger and death factors ranked high when using the standard FSSC-R procedure. However, these factors were found to be considerably less common when administering the fear list procedure and they had a low probability of actual occurrence on a daily basis, as well as possessing a short duration and low intensity. It seems as if the FSSC-R includes items that reflect children's actual fears and phobias, but also lists a number of items that probably tap perception of threat or danger.

Fisher et al. (2006) examined the factor structure of the FSSC-II scores of 884 Trinidadian children and adolescents. Exploratory factor analysis were conducted entailing principal component analysis and common factor analysis. Varimax rotation was used for the principal component analysis. This would facilitate comparison with factor structures reported elsewhere, since previous studies have mostly used this approach. For the factor analysis, oblique rotation was chosen as was done in an earlier study by Burnham and Gullone (1997). A five-factor solution was found to be the most appropriate although it still had its problems. A high number of items did not display a priori factor loading criteria for any of the five factors. The five-factor solution was conceptually similar to those reported in other studies that utilised versions of the FSSC but the reported factor structure was not consistent across

age, gender, sex or nationality.

The study by Mellon et al. (2004) assessed the psychometric properties of self-reports on the Hellenic Fear Survey Schedule for Children (FSSC-GR). This is a Greek version of Ollendick's FSSC-R. Factor structure, intensity, prevalence and content of fears of Hellenic children aged 7-12 years was explored. The FSSC-GR is an 81-item Greek language adaptation of the 80 item FSSC-R (Ollendick, 1983).

The first step in adapting the FSSC-R entailed the translation of the FSSC-R into Greek by a native English speaker and a native Greek speaker. This was done in accordance with the guidelines developed by the international committee of psychologists of the International Test Commission (Van de Vijer & Hambleton, 1996). The two versions were then independently back-translated into English by two Greek philologists. After comparisons and discussion of differences with teachers, item changes were made accordingly. A pilot study was then carried out and resulted in minor rewording. The instrument was then deemed appropriate for further use (Mellon et al., 2004).

Language considerations and local conditions resulted in the changes being made. The 81st item entailed participants to inscribe and to rate the amount of fear elicited by an frightening object not mentioned on the FSSC-GR. This item was evaluated separately from the 80 items adapted from the FSSC-R. This variation has been found valuable in previous studies with respect to cultural differences in fear (Neal et al., 1993; Mellon, 2000). The research findings indicate that the psychometric reliability (internal consistency and temporal stability) of the FSSC-GR is comparable to that of the FSSC-R. As such the FSSC-GR appears to be a satisfactory reliable version of a well-validated measure of children's fears. However, the diagnostic validity awaits further confirmation.

The appropriateness of the five-factor solution was examined by means of a principal component analysis with a varimax rotation. The result was unsatisfactory and a rotated six-factor solution was attempted. The results were still unsatisfactory and a seven-factor was examined. The seven-factor solution provided the best conceptual fit. The first five factors closely corresponded to 'Danger and Death', 'The Unknown', 'Failure and Criticism', 'Injury and Small Animals' and 'Medical Fears' of previous studies (Ollendick, 1983). The two additional factors are: 'Travel and Agoraphobic' and 'Social Performance'. These include

distinctive features of the environment and lifestyle of children living in the Hellenic Republic. The responses on the blank item (e.g. sharks, drugs/drug users and war/terrorism) will be included in a planned revision of the FSSC-R depending on their low response variance. Furthermore, the blank item will be retained providing the opportunity for the relevation of unusual fears.

Further criticism with respect to the FSSC-R argues that it is mundane and that everyday sort of fears are overshadowed and undershaded; that self-report information provides a limited view of fearfulness and that obtained data is restricted to children's reports of fear in response to a specific event which is often unlikely to occur. Thus the FSSC-R tends to reflect a negatively affective response to the thought of the occurrence of specific events and is not situation specific, addressing more global states of fear and anxiety (King et al., 1989; McCathy & Spence, 1991; Murdoch James et al., 1994).

An investigation by Ollendick and King (1994) examined whether the high number of stimulus items endorsed by youth as arousing 'a lot' of fear on fear survey schedules, is a valid indicator of actual fear experiences in relation to the respective stimuli. A modified version of the FSSC-R was administered to a sample of 648 adolescents aged between 12 and 17 years. Participants were asked to rate each item on a 3-point scale of daily interference (none, some and a lot), in addition to the standard 3 point scale. A strong positive concordence between level of fear reported for each item and level of interference was found. This seems to indicate that self-reports of fears are a valid assessment, since these are associated with high levels of daily interference and distress. However, these research findings may be as a result of ratings of fear intensity systematically influencing ratings of fear interference. This could have been overcome by requiring respondents to rate items on a separate form for fear intensity and interference rather than one. In addition, the administration of the two forms in counterbalanced order would eliminate the probability ratings, systematically influencing each other.

Gullone and Lane (2002) extended previous research regarding the validity of the Fear Survey Schedule (FSS). They administered three different versions of the FSSC-II to 439 adolescents aged 11-18 years. All three conditions entailed ratings of fear level intensity and one condition entailed fear frequency ratings, to allow comparisons between fear frequency versus intensity ratings. Overall and subscale fear levels were compared across the different FSSC-II

versions once the validation of the modified FSSC-II was completed. Results indicated no overall difference in self-reported fears across the different instruction types. However, a difference was found between reports of fear intensity versus frequency on the death and danger factor. The fear intensity reports were significantly higher than the frequency reports. Older female adolescents significantly discriminated between imagined and daily fear intensity. They scored higher on the daily fear. The findings lend further support to the validity of the FSSC-II in the assessment of fear. As such, researchers and clinicians are recommended to continue using the FSSC-II with standard instructions.

The results of a study by Muris et al. (1997b) showed that fear rank orders depend on the instrument being used and results further indicated that the order in which the self-report instruments are used, for example fear rank orders and FSSC-R, can also influence the fear ranking order due to the carry-over effect, resulting in them lacking in discriminant validity (Muris et al., 1998b). Also, the FSSC-R was found to be an unidimensional instrument (Muris et al., 1999).

Peleg-Popko and Dar (2001) administered a Hebrew version of the FSSC-R in order to examine the relationships among marital quality, family patterns and pre-school children's fears and social anxiety. They reworded the FCCS-R for administration as a parental report. Cronbach's alpha was 0,79 for the entire scale, indicating good reliability. Principal component analysis with varimax rotation indicated that a four factor solution was appropriate. The results indicated that marital quality was negatively correlated to family cohesion and to higher levels of fear of noise, fear of night terrors and fear of harm and death.

Even though more recent versions of fear survey schedules have been published (e.g. Gullone & King, 1993; Shore & Rapport, 1998), the present study is closely based on Ollendick's (1983) FSSC-R. This instrument was utilised in recent studies in a much wider range of cultures and ethnic groups, promoting the identification of shared and distinct features of the self-reported fears of South African children. This also allows comparisons to previous South African studies where the FSSC-R was administered (Burkhardt, 2002, 2003).

3.4.3 Conclusion

In the past various methods have been used to obtain data regarding children's fears (eg.

observational investigations, parent/teacher reports, child interviews, fear list investigations, self-rating checklists and projective techniques). One of the most consistently used instruments, is the FSSC-R, which originates form the FSSC. Although the FSSC-R demonstrates good reliability and validity, revisions of content have been advocated. Adaptations have been made of the FSSC-R such as the FSSC-HI, FSSC-GR, FSSC-II and FSSC-AM. Furthermore, some of these adaptations have been administered in various settings to assess their utility.

Although a substantial amount of research regarding children's fears has been conducted, especially during the last decade, questions still pursue. The FSSC-R has been used in various settings and forms and thus lends itself to comparisons. In South Africa, where mental health is being re-emphasised, the need to understand children's fears has grown. It is hoped that the present study, by utilising the FSSC-R, will contribute to the existing knowledge of children's fears and that these fears will be understood within the South African context.

A wealth of information has been gathered by the FSSC-R and thus for comparative reasons the present study also utilised the FSSC-R, as a point of departure. Furthermore most adaptations, with the exception of the FSSC-AM which has been based on the FSSC-II, have been based on the FSSC-R such as the FSSC-HI, FSSC-II and the FSSC-GR, which further supports the decision regarding the useage of the FSSC-R.

3.5 Chapter summary

In chapter 3 the relevant literature with respect to fears was reviewed, starting with research regarding content, number, level and pattern of fear. The development, origins of childhood fear, stability and seriousness of fear as well as fears and special populations were also reported. Research regarding age, gender influences, culture and the effect of socio-economic level was reviewed. SES and age were not controlled for in the present study. Lastly, retrospective accounts of fear assessment instruments were provided with a more detailed review of the FSSC-R. This entailed a historic component as well as a review of the reliability and validity of the FSSC-R.

In the next chapter the ecological systems theory, as the broad theoretical framework, will be discussed. Other relevant theories are incorporated within this framework in order to provide

an overview of all the systems impacting on a child's development.

CHAPTER 4

THEORETICAL FRAMEWORK

Chapter 4 provides a theoretical framework for the study. The ecological systems theory has important implications for understanding the development as well as the effect of environmental influences on the middle childhood South African child. This theory provides a meta-theoretical framework for contextualising fears expressed by the middle childhood children. Other major developmental theories such as the psychodynamic perspective, social-learning theory and the cognitive developmental perspective, are incorporated within this framework and discussed accordingly.

4.1 Middle childhood in context: A developmental perspective

The ecological theory has made important contributions to the understanding of life-span development and has placed emphasis on environmental factors. The developmental psychologist Urie Bronfenbrenner, describes the context of development as overlapping ecological systems, which are sets of people, settings, and recurring events that are related to one another, have stability and influence the person over time (Bronfenbrenner, 1986; Seifert, Hoffnung & Hoffnung, 2000). This model is considered to be a very influential model of human development and accounts for all the interrelated systems as the child develops (Craig, 1996).

When an attempt is made to understand children's development, there are four interacting dimensions which need to be taken into consideration namely: the person factors (i.e., characteristics of the child or parent), process factors (i.e., Face-to-face interactions between children and other people), contexts and time. Enduring proximal interaction processes are found to be common as well as seen as most important in shaping stable aspects of development. The characteristics or temperament of children, the other people involved and the context in which the interaction occurs, can influence the above-mentioned interaction. It is important to bear mind that the context, person and process elements change due to children's maturation and environmental changes (Bronfenbrenner, 1979, 1986).

The ecological environment is seen as an arrangement of four concentric systems consisting

of the microsystem, mesosystem, exosystem and macro system (Bronfenbrenner, 1979, 1986). These systems are continuously interacting while the development of the child takes place across all of them. The developing child influences and restructures the environment in which he or she lives, but is also in turn being influenced by his or her environment in a dynamic two-way interaction (Craig, 1996).

A more detailed discussion of each system follows, starting with the microsystem, followed by the meso-, exo- and lastly the macro system.

4.1.1 Microsystem

The microsystem is the child's immediate social and physical environment, referring to the activities, roles and interpersonal relations experienced by the child in a particular setting. Examples being the day care centre, neighbourhood, home, school, family, peer group and church (Craig, 1996; Seifert et al., 2000). Thus, the child is not a passive recipient of experiences in these settings, but rather someone who helps to construct the setting (Santrock, 1997, 2004, 2006).

Interactive situations occur in the microsystem where the child is in face-to-face contact with influential others. As such it is bi-directional in nature and the outcome of the interaction is influenced by all the aspects involved.

Issues that affect the child in this system include, whether the child is regarded positively, whether the child is accepted, whether the child is reinforced for competent behaviour, whether the child is exposed to enough diversity in roles and relationships and whether the child is given an active role in reciprocal relationships (Garbarino, 1992). As the child reaches middle childhood his/her socio-emotional world becomes more complex and differentiated. Family relationships as well as peers, continue to play important roles. Schools and relationships with teachers become an integrated and structured aspect of the child's life. The child's development is characterised by self-understanding advances, changes in gender and moral development (Santrock, 1997, 2004, 2006).

Middle childhood is a period where greater emotional maturity is reached. A change occurs from helplessness to independence and self-sufficiency. Emotional flexibility and

differentiation are also acquired. The nature and quality of emotional expressions, however, are affected by gender-role stereotyping. The need to express their emotions is universal to all children but this is often prevented by gender-role stereotyping. In the South African society, for instance, it is often not acceptable when boys cry or show fear and girls are often criticised for being aggressive. Gender-role stereotyping restraints children from using their emotional repertoire as can be seen by the above-mentioned example (Turner & Helms, 1995). The level of masculinity, or instrumental traits, was found to be negatively correlated to overall levels of fearfulness as well as specific fears of failure and criticism, medical fears and fears of the unknown (Ginsburg & Silverman, 2000). Sex-role expectations of the parents can also influence the number, as well as intensity of fears that children are willing to report (Graziano et al., 1979).

Van der Zanden (1993, 1997) points out that from the ages of 6 to11 children's knowledge of their emotions and emotional experiences changes tremendously. Emotions are more and more attributed to internal causes by children. Awareness of the social rules governing the expression of emotions arises, the ability to 'read' facial expressions with greater accuracy is formed, the understanding that emotional states can be altered psychologically commences (eg. thinking of something cheerful when feeling upset); and the realisation that people have the ability to identify and attach emotional labels as 'anger', 'fear', 'sadness' and 'happiness' to feelings comes to the fore. This enables them to identify and differentiate their feelings and thus answer a questionnaire of fears. Also, greater understanding of other people's feelings and the reasons behind those feelings develops. Simultaneously a refinement regarding changing, containing and hiding their feelings occurs, which has implications for the expression of fears. Boys may hide or mask their feelings, since they are expected to be strong and to be masculine according to gender role expectations.

Parent-child relationships, peer friendships and the participation in meaningful interpersonal communication, equip the children with social skills necessary if they are to cope with further upcoming challenges during adulthood. Families continue to play an important role but the influence of peers grows tremendously. Parents' influence differs from that of peers, since parents have greater experience and psychological maturity, have access to more resource material and because of their power (Seifert et al., 2000). Children thus see their parents as role models and could learn to cope with their fears from observing their parents. The concept of coping with fears is not discussed in the present study but is an important factor when it

comes to planning prevention programmes. Peers play an very important role both in and out of school. The sense of belonging and acceptance are major concerns during middle childhood (Newman & Newman, 1997).

Self-concept develops quickly during middle childhood, being a sensitive period because certain types of experiences have important consequences for development (Louw et al., 1998). A shift occurs in how children see and describe themselves while a shift occurs from describing themselves through activities (eg. 'I can play ball'), to how well they can accomplish a task (eg. 'I can play ball better than Jane'). The ability to assess themselves with greater precision is therefore formed (Harter, 1982). A shift from defining oneself through external characteristics to internal characteristics also occurs. In addition, children tend to define themselves more readily, in terms of social characteristics and social comparisons (Santrock, 1997).

Knowledge of themselves is based on various aspects which include their achievements, their needs and the expectations others have of them. The latter may influence the findings of the semi-structured interview as well as the adapted FSSC-R. The self-concept is influenced by the ability children have to regulate their own behaviour. Thus, it is imperative that their belief in their ability to meet personal and social requirements, is developed and strengthened (Louw et al., 1998).

During middle childhood a large part of a child's day is spent at school. As such, it is fair to assume that the school plays a very important role in a child's life. The child between the age of 8 and 13 has spent at least 2 years in school and has developed writing, reading, as well as spelling skills. Thus, it is appropriate and within the child's abilities, to complete a questionnaire with assistance, if required. Language development improves with a broader, more extensive vocabulary, sentence structure and the ability to adapt language to the context in which it is used (Louw et al., 1998). The school years are marked by emotions becoming more refined (Turner & Helms, 1995).

Middle childhood covers the ages of approximately 6 to 12 years, where cognitive and social skills are developed. Since the microsystem refers to the child's immediate environment other relevant developmental theories impacting on the child are mentioned within this context. These include Freud's psychosexual theory, psycho-social theory (Erikson), cognitive theory

(Piaget, Vygotsky) and the social learning theory (Bandura).

4.1.1.1 Psychoanalytical theory

Psychoanalytic theories describe development as primarily unconscious, being influenced by emotions. It is believed that behaviour is merely a superficial characteristic and that a deeper understanding of development entails analyzing the symbolic meaning of behaviour as well as the deep, inner workings of the mind. Experiences with parents are stressed and the belief that these shape development. The main and most known psychoanalytic theory is that of Sigmund Freud (Psychosexual theory). Erik Erikson (Psychosocial theory) recognised Freud's contributions but was of the opinion that Freud did not acknowledge important dimensions of human development (Santrock, 1997, 2004, 2006).

The influence of Sigmund Freud (1856-1939), a psychoanalyst, cannot be disputed, since he still is one of the most famous psychologists. According to Freud's psychosexual theory an individuals' life span can be divided into 5 stages, namely; oral, anal, phallic, latent and genital stages. He called the middle childhood period the latency stage, the fourth stage, suggesting that no significant psychosexual developmental contributions occurs. During this period the sexual and aggressive impulses are repressed, as the child struggles to resolve the oedipal conflict. The unresolved feelings retreat and are waiting to resurface at the beginning of adolescence. The child focuses on building competencies and skills as a defence as an unconscious, self-protective behaviour against romantic feelings towards his or her parent. The child thus channels energy into emotionally safe areas, helping the child to forget the highly stressful conflicts which arose during the phallic stage (Louw et al., 1998; Newman & Newman, 1999; Seifert et al., 2000; Santrock, 1997, 2004, 2006).

4.1.1.2 Psycho-social theory

Erik H. Erikson (1902-1994) was trained as a psychoanalyst but became one of the most important Neo-Freudians with respect to child development. His psycho-social theory covers the entire life-span and presents a positive and optimistic view of human development (Louw et al., 1998; Turner & Helms, 1995; Seifert et al., 2000; Santrock, 1997, 2004, 2006). The life span was divided into 8 stages, unfolding as development ensues. During each stage, the individual is confronted with a unique developmental task presented as a crisis. Thus, in each

stage there are two opposing poles. The solution lies within a synthesis of the two poles resulting in a new life situation and not within choosing the more positive pole. This means that each stage is dominated by a predominant theme of a positive and negative extreme. The crisis in each life stage is in some way related to an element in society (Louw et al., 1998; Turner & Helms, 1995; Seifert et al., 2000; Santrock, 1997, 2004, 2006). According to Erikson (1963) the crisis is not a catastrophe but can rather be seen as a turning point of increased vulnerability and enhanced potential. An individual becomes healthier during development as more crises are resolved successfully (Santrock, 1997, 2004, 2006).

According to Erikson's psycho-social theory of development, the major developmental crisis at stage four, where the child is aged between 6 to 11 years, is the conflict between industry and inferiority. Industry at this stage represents an eagerness to acquire skills as well as mastering them, becoming competent and performing meaningful work. Children leave the protection of their families and enter the world of school. Here they need to believe in their ability to learn the basic intellectual and social skills required to become full as well as productive members of society. Children who are able to convince themselves and others that they can do good work develop a relatively confident and positive concepts of themselves (Seifert et al., 2000).

On an intrapsychic level Erikson (1963) postulated that middle childhood is very important because attitudes towards work are established. By this, independence and responsibility are increased, which in turn increases the sense of worth. Support, good role models, adequate training and education are of utmost importance (Craig, 1996). Inferiority is represented by feelings of worthlessness and inadequacy which arise from negative feedback from the self and the social environment, as the interaction with peers plays an important role (Newman & Newman, 1997). Poor training and lack of support, direction and reinforcement can result in the child feeling inferior (Craig, 1996).

According to Erikson, the majority of children experience feelings of self-confidence as well as a fear of inferiority, but self-confidence is mostly able to come to the forefront. This crisis provides healthy school-going children with a more or less permanent motivation to achieve particular and definable standards of excellence. The belief that he/she can achieve and that efforts will be fruitful is influenced and shaped by earlier successs and failures at school (Seifert et al., 2000). The important question the child asks him-/herself during this stage is

whether he/she is able to master the new skills required to survive and to adapt.

The above-mentioned aspect of the importance of feedback from the social environment and peers could help to understand research findings where there has been an increase in socio-evaluative fears between the ages of 11-13 (Dong et al., 1994).

The ecological theory stresses the need to understand the development of the self in terms of the everyday environment in which a child grows up (Meyer, Loxton & Boulter, 1997). Bronfenbrenner argues that the developing child is influenced by the interactions which occur in the microsystems as well as the events that occur in adjoining systems. Thus, the developing child is at once a complete individual system as well as being a component of one or more larger systems (Newman & Newman, 1997). Children's fears can be influenced by the interaction of all the systems.

The ecological framework has allowed for a more culturally sensitive approach to development as well as to interventions as universal models (Ogbu, 1981).

Some differences are apparent among the two above-mentioned theories. Freud believed that the primary motivation of human behaviour was sexual in nature. Erikson on the other hand, believed that it was social and reflected a desire to affiliate with other people. Furthermore, Freud stipulated that our basic personality is shaped within our first five years. Erikson, in contrast, argues that development takes place throughout our life span (Santrock, 1997, 2004, 2006).

4.1.1.3 Cognitive theory

Cognitive theories emphazise conscious thoughts. The three cognitive theories which are relevant are Piaget's cognitive developmental theory, Vygotsky's sociocultural cognitive theory and the information-processing theory.

Another influential figure in the field of developmental psychology was the Swiss psychologist, Jean Piaget (1896-1980). He enhanced the understanding of human thinking and problem solving, as such cognitive development (Louw et al., 1998, Turner & Helms, 1995; Seifert et al., 2000). He stressed that children actively construct their own cognitive worlds

and that information is not simply just poured into their minds from the environment. He believed that children's thinking developes by adapting to include new information (Santrock, 1997, 2004, 2006).

There are two processes that underlie this cognitive construction of the world, namely organisation and adaptation. In order for humans to make sense of the world, experiences tend to be organised. As such a child can organise what is most feared and least feared. Similar fears are also grouped together. Furthermore, thinking is adapted to include new ideas since additional information furthers understanding.

Adaptation occurs by means of two ways: assimilation and accommodation. Assimilation is a process whereby individuals incorporate new information into existing knowledge. Accommodation entails the adjustment to new information. Thus a child, who has been previously afraid of geckos and snakes, upon encountering a leguan, suddenly also becomes afraid. This happens due to a child observing the situation and seeing a strong snake-like tail, a snake-like tongue and the general body shape of the gecko. Thus the theory lends itself to understanding fear acquisition pathways.

Piaget conceptualizes four stages of cognitive development. According to him, the third period of cognitive development takes place during the ages of 7 and 11 or 12 years. This period is known as the concrete operational stage. As such the concrete operational thought consists of operations or mental actions which have three interrelated qualities: decentration, sensitivity to transformations and reversibility (Santrock, 1997, 2004, 2006; Seifert et al., 2000). During this stage children develop the ability to rely on logical operations in order to form their own conclusions. Children are able to do mentally what was done physically before. They are able to classify things as well as to deal with the hierarchy of classification. Their thinking becomes more adult-like, with them understanding and achieving conservation (Craig, 1996).

This cognitive development is mirrored in research findings with regard to developmental changes reported (Elbedour et al., 1997; Ollendick et al., 1985b; Turner & Helms, 1995). The cognitive skill of middle childhood children increases largely, due to the fact that they attend school. Differences, however, are apparent between the children, depending on the quality of the school and the regularity with which a child is attending school, as well as the resources of

the school. In summary, the thought process becomes more competent, flexible and powerful as the concepts of decentring, reversibility and conservation are understood and applied (Craig, 1996; Piaget & Inhelder, 1958).

Lev Vygotsky, a Russian researcher, believed that children actively construct their environment. His theory differs from Piaget's in that he gives social interaction and culture far more important roles in cognitive development, implying that cultural and social interaction guide cognitive development. According to Vygotsky, the development of memory, attention and reasoning has to do with learning how to use the inventions of society such as language, mathematical systems and memory strategies. This theory could be very valuable when interpreting the cultural differences of fear expressions. Furthermore, it could explain how fears transcend from one generation to another, namely through interaction among the different generations.

Vygotsky also postulated a term, the zone of proximal development (ZPD), for the range of tasks that are too difficult for a child to master on it's own but which can be learned with the guidance as well as assistance of adults or more skilled children. The ZPD consists of an upper limit, where the child is able to accept an additional level of responsibility with the assistance of an able instructor, and a lower level. The lower limit entails the level of problem solving reached by the child working independently. This for instance, can play a role in how children cope with their fears. With the assistance of an adult dealing effectively with own fears a child can be guided by comments and assistance to cope with the fear more effectively rather than being overwhelmed by it. As such the ZPD can be seen as a zone where the child's cognitive skills are in the process of maturing and can only be mastered with the assistance of a more-skilled person.

Closely linked to the term ZPD is the term 'scaffolding'. This entails the amount of support provided by the more skilled person. During the mastering of a new task a great deal of assistance may be provided and then systematically decreased, as the child is able to master the new skill. Vygotsky also believed that children use language to plan, guide and monitor their behaviour in a self-regulatory fashion as well as for social communication, meaning that it is an important tool of thought. This differs from Piaget, who believed that private speech is egocentric and immature (Santrock, 1997, 2004, 2006).

Vygotsky (quoted in Dworetzky, 1995), described the possible effect of environmental influences on cognitive structures. The moral development of a child might be influenced by the level of cognitive development. Morals are the attitudes and beliefs which determine what is right and wrong. Three levels of moral development were postulated by Lawrence Kohlberg namely; the preconvential, the conventional, and the post conventional (Kohlberg, 1981). Furthermore, he describes 6 stages that are spread across these levels. He believed the levels and the stages occur in sequence and that they are age related. A child younger than 9 years reasons about a moral dilemma in a preconventional way. During early adolescence a child reasons in a more conventional way and by early adulthood, a small percentage of adults reason in a post conventional way.

The information processing theory places emphasis on the fact that individuals manipulate information, monitor it, and strategize about it. The central concept of this theory being the processes of memory and thinking. There are no stage-like developments as in Piaget's theory. As such, it can be said that individuals develop a gradually increasing capacity for processing information, allowing them to acquire increasingly complex knowledge and skills. This could be a possible reason why older children display more complex fears than younger children. Furthermore, the fact that children are able to develop more skills, enables them to deal more effectively with their fears and thus results in an decrease of fears with an increase in age, as reported by research findings.

The changes that occur during middle to late childhood in information processing, involve memory, critical thinking and meta cognition. Short-term memory increases substantially during the early childhood years, but reaches a plateau after the age of 7. Long term memory is influenced by a number of factors such as the knowledge of a particular topic and control strategies or process which reinforce new material. Critical thinking comprises of the following: thinking reflectively, productively and evaluating the evidence. Metacognition entails knowing about knowing and as such, first order cognition and second order cognitions (Santrock, 1997, 2004, 2006).

4.1.1.4 Social cognitive learning theory

The social cognitive learning theories have also made a contribution explaining developmental change. Furthermore, they have been useful in explaining various aspects of

developments such as gender development and the development of aggression. Albert Bandura suggests that learning and developmental change, as such, largely occurs through observational learning. According to him learning is reciprocally determined, resulting from interactions between the developing individual and his physical, as well as social environment.

Observational learning can be subdivided into imitation and modelling. Imitation entails the direct reinforcement for copying others. Modelling requires the child learning the behaviours and personality traits of a parent or other role models through indirect reinforcement. Children's level of cognitive development plays a role in their ability to observe, remember and to later perform in similar ways as their models (Seifert et al., 2000). The social learning theory also plays a role in the acquisition of fear. A child who watches how a parent is afraid of snakes may thus learn to become afraid of them as well. This statement is supported by research that has indicated that modelling does play a role in fear acquisition. Muris et al. (2000b) found that 25,50% of children modelled fear. In another study by Muris et al. (1997a) only 3,80% of children learned their fear through modelling. Ollendick and King (1991) reported that 56,20% of children had acquired their fear by modelling. The above-mentioned shows some variation in the percentage of children who have acquired their fear through modelling. This can in part be attributed to research methodology as well as the definition of fear pathways.

Bandura expanded and updated the social learning theory and renamed it the social cognitive theory. The name change reflects a new emphasis on thinking being part of learning. Social learning theorist have recognised that children observe their own behaviour, the behaviour of others as well as the consequences of these behaviours (Craig, 1996).

4.1.1.5 Conclusion of the microsystem

In conclusion, the issues of industry, mastery, achievement, success, social skills, co-operativeness and interpersonal sensitivity come to the forefront. The orientation towards work, friendship and essential aspects of adult life commences. Furthermore, emotions became more differentiated and refined and children are able to label their emotions, as the following quotation suggests:

‘Children know nothing about childhood and have little to say about it. They are too busy becoming something they have not quite grasped yet, something which keeps changing …. Nor will they realize what is happening to them until they are far beyond it to remembering how it felt (p.324).’ Alistair Reed quoted in Santrock (1997).

4.1.2 Mesosystem

The mesosystem connects all the microsystems in which the child is involved, being a set of associated microsystems (Craig, 1996; Richter, 1994). Thus, the mesosystem is formed by interrelations among two or more settings. The issues that affect the individual are; whether the settings respect each other and whether the settings present basic consistency in values (Garbarino, 1992). An example being, a single mother’s ability to respond to her child’s emotional needs is diminished due to economic strain, placing the child in a vulnerable position (Richter, 1994). The child, however, may be exposed to a positive environment at the school by a friendly teacher, aiding in boosting self esteem and as such, the belief in self. This strengthens the feeling of competence that is of importance during middle childhood. This belief in self and sense of mastery is a positive experience provided for in the school-child microsystem, which in turn reduces stress in the family microsystem (Rutter, 1985).

The development is influenced by informal as well as formal settings between the home, school and peer groups (Craig, 1996). A child’s family is often seen as an important buffer for the child, where the child’s needs can be fulfilled. This is however, not always the case in the South African context. The legacy of Apartheid has left severe disparities, which provides obstacles for some families to provide a supportive, as well as protective context in which the child’s needs could be satisfactory fulfilled. The educational system can also serve as an important social support system, which can be seen by the previously mentioned example. In the past children’s education in South Africa was severely compromised and in the process this social support function was undermined. Black schools, to a large extent, still represent the institutionalised neglect of children (Duncan & Van Niekerk, 2001).

4.1.3 Exosystem

The exosystems are more removed from the child itself, not involving the child directly but, are instead the interactions of those who have a relationship with the child (i.e. parent’s

relationship with employer). The exosystem is applicable when occurances in another social setting, where the child has no active role, is influencing what the child experiences in a immediate context (Santrock, 1997). The people having proximal relationships with the child are directly affected by these contexts. An example could be a parent becoming unemployed and the subsequent effect on a child's life. Another example could be a parent involved in an armed robbery incident at work. The parent then expresses the fear at home, influencing the child through modelling and providing negative information. This leads to an important aspect to bear in mind, namely, whether the social support systems for families balances stressors for parents and whether decisions are made with the interest of the child in mind (Seifert et al., 2000).

4.1.4 Macrosystem

The macro system comprises the broader political and cultural levels, exerting an influence on all other levels of the systems within which the child is involved. The macro system entails values, laws, and customs of the culture or society in which the child lives and as such can be seen as the 'blueprint' for defining and organizing the institutional life of society. Examples include ideology, social policy, shared assumptions about human nature and the 'social contract' (Seifert et al., 2000). It also includes historical events such as September 11th and Apartheid and their consequences. The negative impact on the economy, education and the level of violence as a result of Apartheid are referred to by Dawes and Donald (1994). According to Dawes and Donald (1994) the consequences of the South African macrosystem are the development of fear, hatred and despair. Interventions to encourage development are especially critical at this level, because the power this level has to influence all the other levels (Bronfenbrenner, 1986).

Certain literature reports an ecological theory with five environmental (microsystem, mesosystem, exosystem, macrosystem and chronosystem) systems ranging from the fine grained inputs of direct interactions with people to the broad-based inputs of culture (Santrock, 1997, 2004, 2006). If this is further examined, it becomes apparent that the only difference is actually the definition of the macrosystem. The ecological theory as explained by this study, only mentions the macrosystem. The chronosystem as such, is actually the macrosystem further subdivided. In other words the macro system, in the present study, is an umbrella term for both the macro- and chronosystem. The distinction that is made by some,

shows that the macro system only comprises of the culture in which the individual lives. The chronosystem pertains to the patterning of environmental events and transitions over the life course and socio-historical occurances (Santrock, 1997, 2004, 2006). These transitions can also be seen as temporal changes in children's environments, which produce new conditions that affect development. Examples include the death of a family member, divorce and a traumatic event which have an influence on children's development (Berk, 2000).

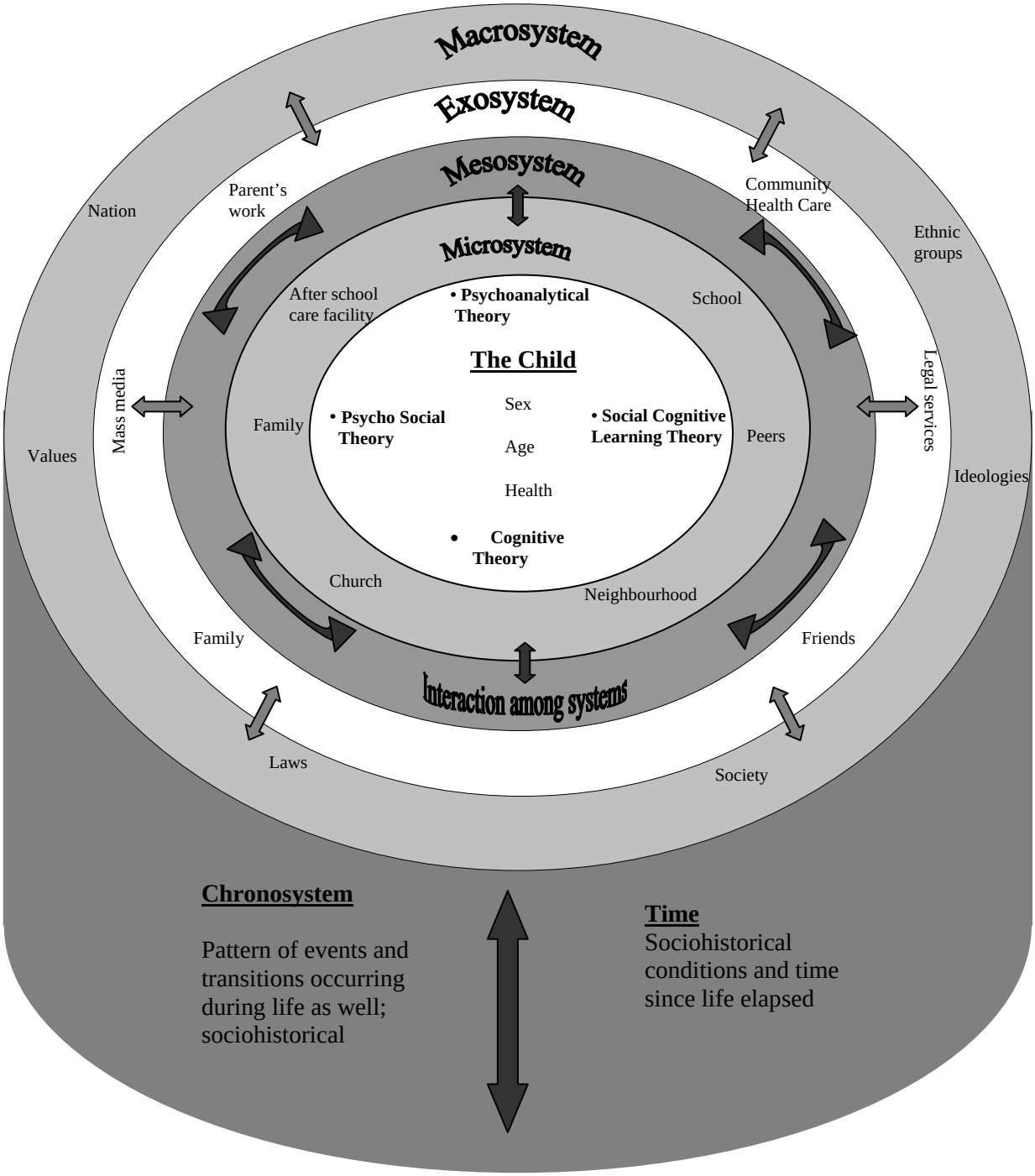
Some studies have mentioned the effect of certain historical events on the fears children express. It can thus be hypothesised that children are inclined to have a greater fear of violence especially in terms of bombing, terrorist activities and war due to the much publisized September 11, 2001 bombings and the consequent activities.

Vygotsky's socio-cultural theory also plays a role in the macrosystem due to the emphasis on cultural activities. He stipulates that culture influences how information is learnt and that this differs from culture to culture, depending on their beliefs.

Aspects that play a role as such include whether some groups are valued at the expense of others, whether there is an individualistic or a collectivistic orientation and what is the degree of violence (Garbarino, 1992).

4.2 Chapter summary

Figure 4.1 represents a summary of the theoretical outline of chapter 4.



Adjusted and adapted from Santrock (2004,2006)

Figure 4.1 Summary of chapter 4 based on the Bronfenbrenner's system theory

What becomes apparent is that all major theories of childhood contribute towards explaining and understanding the phenomena of fear within the ecological systems approach.

The methodology used to obtain and analyse the data for the research is outlined as well as discussed in the following chapter. A short introduction pertaining to the aims of the study is followed by the research design, detail regarding participants, measuring instruments, research procedure, data analysis, related matters and arrangements and lastly a short summary providing an overview of chapter 5.

CHAPTER 5
METHODOLOGY

In this chapter the method used to obtain and analyse data is outlined and discussed.

5.1 Introduction

The primary aim of this study is to develop a measuring instrument that is scientifically and socially relevant to the South African context. This entails obtaining normative data regarding South African middle childhood fears in order to incorporate these emerging themes into the existing FSSC-R and, by doing this, to developing a South African measuring instrument.

The secondary aim of this study is to administer this extended scale and to determine normative data regarding fears in a selected group of middle childhood South African children with respect to content, number, level and pattern of fears.

In order to obtain more clarity regarding the above-mentioned aims, the research design, participants and sampling, measuring instruments, research procedures, data analyses and related matters such as ethics and consultation are discussed.

5.2 Research design

Data collection consisted of two phases namely; a qualitative (semi-structured interviews) and a quantitative (administering the extended FSSC-R) one.

Stage 1: During the first stage the Western Cape Education Department was approached with the request to grant permission to conduct the study (see Addendum A). Once permission was granted by the Western Cape Education Department (see Addendum B), the headmasters of four primary schools in the Stellenbosch area were approached. The headmasters were provided with the relevant information regarding the research (see Addendum C) and telephonic follow-up was maintained, since the researcher was residing in neighbouring Namibia. The relevant teachers were also provided with the necessary information. The participants were recruited using a convenience sample. All the approached schools that were contacted provided their full support and commitment regarding participation and

collaboration in the study. The children who complied with the exclusion criteria and as such were deemed as potentially suitable participants, were identified by the researcher in collaboration with the respective class teachers. Information letters (see Addendum D) were then sent to the respective children's parents. All children with parents having provided informed consent, were incorporated as participants in the study. Individual assent from the participants was also obtained.

Stage 2: The second stage consisted of collecting the data from the children. *Phase 1* entailed conducting semi-structured interviews with the children (see Addenda E & F). This was done after the necessary consent was obtained from the respective parents. The logistical aspects with regard to the information letter, the biographical questionnaire (see Addendum H) and the consent form were managed in collaboration with the different school systems. The parents were provided with the relevant information in a sealed envelope and in their preferred language. The completed forms were then returned via the respective class teachers.

Once all the necessary information was obtained from the parents, arrangements were made to conduct the semi-structured interviews at the respective primary schools. The interviews were scheduled at 30 minutes intervals since this proved to be a realistic time slot according to the study completed by Martalas (1999) as very young children were interviewed. Written notes were made during the interview by the researcher as well as voice-recordings which were to be transcribed later. The latter assisted in clarifying and verifying the data. At each of the four primary schools ten children from Grade 3-7, two from each grade, were randomly selected by the class teacher to participate in the semi-structured interview. After consent from the parents, a total of 40 children, consisting of boys and girls, participated in the semi-structured interviews. The interviews were conducted during April 2005.

Stage 3: During the next stage, the data from the semi-structured interviews was analysed for emerging themes by entering the transcribed interviews into ATLAS.Ti (Muhr, 1997), a computer programme that assists in the organisation as well as analysis of qualitative data. The emerging themes were added to the end of the FSSC-R.

The next step incorporated *Phase 2* and entailed further collection of data by administering this extended FSSC-R. Once again the same procedure with regard to providing parents with the necessary information as well as obtaining consent was followed as mentioned above. The

data was collected mainly in a quantitative manner and no manipulation occurred. The participants completed two questionnaires. These consisted of the biographical questionnaire (see Addendum H) and the adapted version of the FSSC-R and were administered in exactly the same order as they are mentioned.

The data obtained via the adapted FSSC-, R was analysed by using the statistical package for social science (SPSS, George & Mallery, 2006).

Figure 5.1 provides a summary of data collection and analysis:

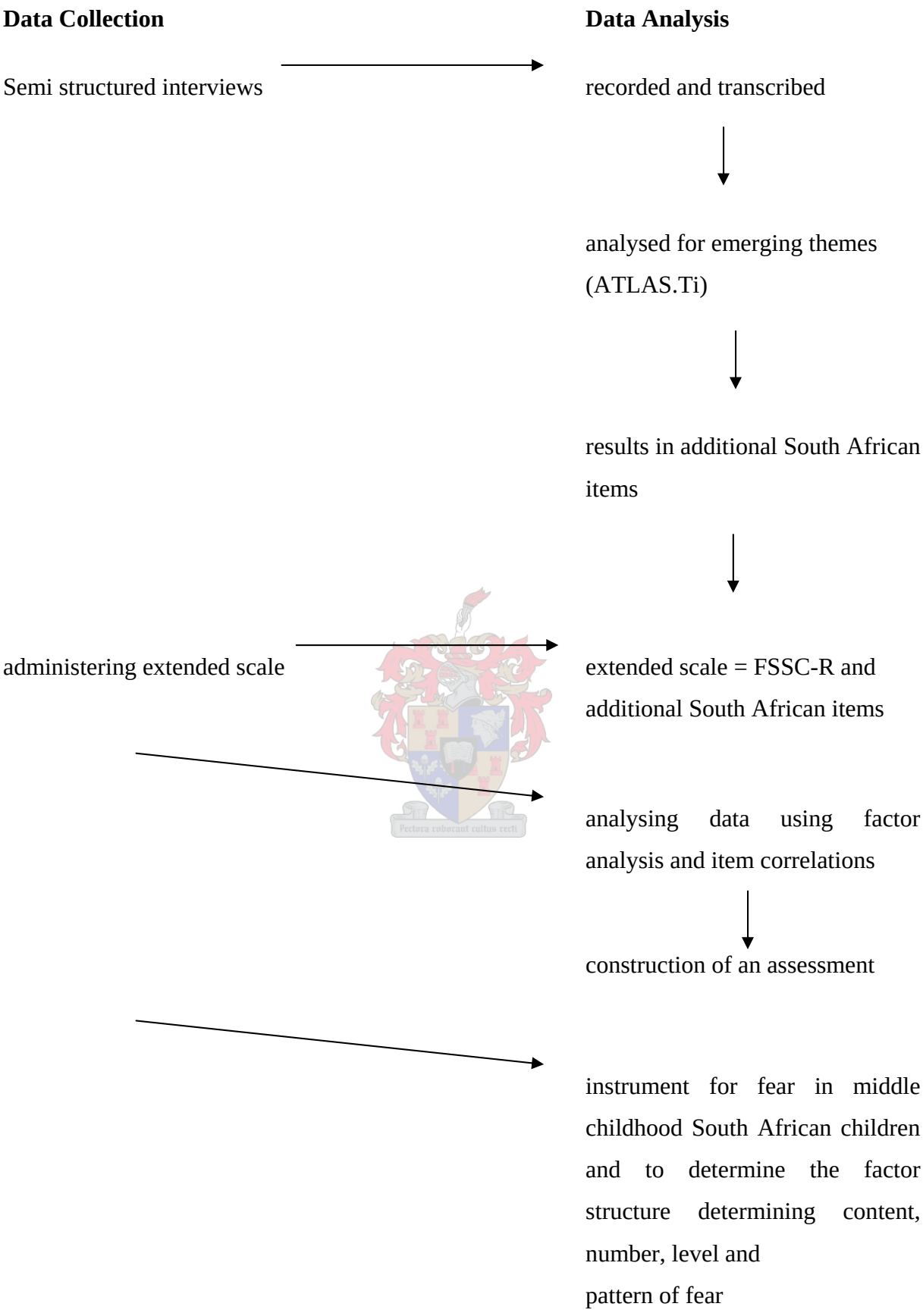


Figure 5.1 Summary of data collection and analyses

5.3 Participants

The semi-structured interviews were conducted with 40 middle childhood children attending four regular primary schools in the Stellenbosch. The children were attending Grade 3 to 7 and were aged between 8 and 13 years. The cut-off point for the age group was determined by the year in which they were born, implying that children who were born between the 1 January 1991 and 31 December 1996 met the age requirements provided that they were attending Grade 3 to 7. The final sample consisted of 646 middle childhood children and the same criteria applied except that this sample participated in the study the following year thus children who were born between the 1 January 1992 and 31 December 1997 met the age requirements provided that they were attending Grade 3 to 7.

To enhance the generaliseability and representativeness of the sample, the schools were selected from various socio-economic areas. The sample is thus proportionally representative of middle childhood South African children in 3 different cultures in the Stellenbosch area.

The guidelines proposed by Kruger (1989) for qualitative research were consulted in the present study with respect to the semi-structured interviews. These guidelines were previously utilised in a study by Martalas (1999) and Loxton (2004) and were found to be scientifically and socially relevant to the South African context. The following guidelines were taken into account in the present study.

- The participants' experiences should be related to the topic being researched, which would be the expression of fear during this study.

- The participants should be verbally fluent and should be able to communicate their feelings. According to research findings as well as from a developmental perspective 8- to 13-year-olds can express their fears (Louw et al., 1998).

- Participants should be tested in their home language. The researcher ensured that participants were able to do so. Semi-structured interviews were conducted in their respective home-language. The researcher conducted the interviews in English and Afrikaans and trained a Master student with previous experience, in conducting interviews to conduct the interviews for the Xhosa-speaking participants. All the interviews were

audio taped so as to be transcribed. This ensured that subtle semantic nuances were not missed or lost.

- The participants expressed a willingness to engage in a conversation with the researcher. The researcher focused on letting the participant feel comfortable. A motivational talk was provided prior to the actual semi-structured interview (see Addendum E). In the present study one participant claimed to have no fears during the interview.

- The participants were not acquainted with psychological theory. Given the age of the participants it was assumed that they were not knowledgeable regarding psychological theory.

5.4 Measuring instruments

The measuring instruments are described in order of application as used in the research.

5.4. 1 Biographical questionnaire

Data concerning culture, living circumstances and gender was collected by means of the biographical questionnaire. As such the independent variables were obtained through the biographical questionnaire. During *Phase 1*, the qualitative phase, participants' parents were requested to complete the biographical questionnaire and return this with the letter of consent prior to the semi-structured interview.

During *Phase 2*, the quantitative phase, the biographical questionnaire was administered before the extended FSSC-R to each participant, who completed the questionnaires by themselves with the aid of research assistants. The use of research assistants who were previously trained ensured clarity. The researcher was available at all times and supervised the assistants. The questionnaire was clear and easily administered.

5.4.2 Semi-structured interviews

During stage one of the research, semi-structured interviews were conducted. These were transcribed, analysed for emerging themes with the prominent emerging themes being added

to the existing FSSC-R to result in a extended FSSC-R, which was then administered during stage two of the research.

An individual semi-structured interview (see Appendum F) was chosen as a method of qualitative data collection since the researcher wanted to determine which fears were relevant and common amongst the South African children.

A semi-structured interview should be considered when the topic is of a sensitive nature, the respondents originate from diverse backgrounds and experienced as well as expert interviewers are available for conducting interviews (Welman, & Kruger; 1999). With respect to the present study all three of the above are relevant. During semi-structured interviews, interview guides (Addendum F) were used. The open-ended questions utilised by Loxton (2004) were incorporated in the interview guides. This guide involved a list of certain topics and questions that have bearing on the given theme, in this instance fear, which the interviewer should raise during the course of the interview.

All respondents were asked the same questions but the interviewer adapted the formulation, including terminology, to fit the background and educational level of the respondent. The order in which the topics were broached varied from respondent to respondent, depending on the way the interview developed. Semi-structured interviews offer the researcher a versatile way of collecting data. They can be used for all age groups. Semi-structured interviews also allow the interviewer to use probes with the intention to clarify vague responses or to ask for elaboration of incomplete answers. The respondent may be given the necessary encouragement to proceed by the interviewer remaining silent (Welman, & Kruger, 1999).

According to Gullone and King (1997), self-reports constitute direct access to the child's emotional experiences. Many researchers have claimed that this method is the most efficient means of gaining access to individual's experiences (e.g. Nietzel, Bernstein & Russel, 1988). Furthermore, it allows the researcher to be flexible (Dooley, 1995; Kvale, 1983). Certain limitations, though, need to be taken into consideration. Responses may be interpreted within the researcher's frame of references rather than the respondents'. This is referred to as 'expectancy effects' (Abrahamson, 1983; Miller et al., 1974). Thus it is important to determine inter-rater reliability (Gullone, 2000).

Wengraf (2001) cautions researchers who believe that a semi-structured interview is easier than a structured interview. A semi-structured interview must be fully prepared and planned in order for the researcher to be able to improvise. According to Wengraf (2001) for a semi-structured interview to be successful, it requires as much preparation before the session as possible, discipline and creativity during the session and time for analysis and interpretation after the session. The researcher kept the afore-said guidelines in mind, during the data collection phase.

In a study by Maurer (1965), where 130 children ranging from 5 to 14 years were involved, questions were used in order to gather knowledge regarding what children fear. They were asked the following questions: 'What are the things to be afraid of? And what else? Anything else?' The answers were recorded and transcribed verbatim. The children were given no clues, because of the danger that children could interpret these as critical and consequently answer defensively. The same procedure which was applied by Derevensky (1979) to 133 children between the ages of 7 to 19 and the categories of research were modified from the research by Maurer (1965). The categories were: animals, people, dark, spook, natural hazards, machinery, death, injury and miscellaneous.

The sample in a study by Muris et al. (1997a) consisted of 129 children with the ages ranging between 9 and 13. The Free Option Method (FOM) was used in order to examine the rank orders and characteristics of childhood fears. The interview began with the question: 'What do you fear most?' The details regarding the intensity of the fears were obtained by the question: 'How much do you fear ...?' with 1 = not at all and 10 = very much. For the level of interference the question: 'How much do you worry about... ?' 1 = not at all, 10 = very much was asked and for the reaction to the feared stimuli the question 'How do you react when you are confronted with...?' was asked. The physical symptoms, negative thoughts and avoidance behaviour were rated in terms of 0 = absent and 1 = present. It was found in this study that the fear rank order was determined by the instruments being used.

Criticism by Graziano et al. (1979) regarding the fear list techniques was that it is not possible to determine either the completeness or intensity of the listed fears. The latter criticism was addressed in the present study by asking the children not only to list their fears, but also to indicate how much they fear them (none, some, a lot).

The child's cognitive and verbal abilities need to be taken into consideration when contemplating using this method, given the cognitively demanding nature of this method. Thus, it is not surprising that this technique has generally been applied to samples older than eight years (King et al., 1988; Ollendick & Hersen, 1984).

5.4.3 The Fear Survey Schedule for Children Revised (FSSC-R)

A wide variety of procedures have been used in the past to investigate children's fears, ranging from observing children in their natural environment (Jerslid & Holmes, 1935a), interviewing the children's parents or the children themselves (Nalven, 1970; Pratt, 1945), to fear survey schedules. The fear survey schedules, however, have been predominantly incorporated in normative fear research because the scales have several advantages (Lane & Gullone, 1999). The present study has made use of the FSSC-R of Ollendick (1983) in order to allow valid cross-national comparisons with the already existing body of research regarding the FSSC-R.

A fear survey schedule for children (FSSC) was developed by Scherer and Nakamura (1968) upon modification of Wolpe and Lang's (1964) adult fear schedule, with the cognitive and verbal abilities of a young child in mind, in order to obtain a measure of fear. They attempted to develop a fear scale for children for the assessment of fear, in which the items are grouped into sub-scales which were selected on a conceptual basis, similar to that of the Wolpe and Lang (1964) Fear Survey Scale. An 8-factor solution was found to be most appropriate and consisted of the following: Fear of failure and criticism, major fears, minor fears-travel, medical fears, fear of death, fear of the dark, home-school fears and miscellaneous fears. Each of the 80 items of the FSSC were rated on a 5-point scale of 'none', 'a little', 'some', 'much' and 'very much'. The FSSC was administered by Scherer and Nakamura (1968) to children of ages 9 to12. No age differences were found, but gender differences were apparent, with girls scoring higher on intensity and prevalence than boys.

In 1983, Ollendick revised the FSSC which is a self-report instrument, to enhance the validity and reliability with younger children as well as with children, who had intellectual disabilities. One of the differences was that the individual items were not rated on a 5-point scale anymore but on a 3-point scale (none=1, some=2 and a lot=3). The reason for the change was because of concern that young children might become confused with a 5-point

scale. The scale became known as the Fear Survey Schedule for Children Revised (FSSC-R), with specific items on the scale remaining unchanged. The age group for which the FSSC-R can be appropriately used is from 8 to 16. The categories in which the fear are measured is the same as for the FSSC and the FSSC-R. These categories are school, home, social, physical, animal, travel, classic phobia and miscellaneous (Fonseca et al., 1994). For the FSSR-R a five-factor solution was mostly appropriate, which was derived from factor analysis conducting principal factor extraction with varimax rotation and consists of the fear of failure and criticism, fear of the unknown, fear of injury and small animals, fear of danger and death and medical fears (Ollendick, 1983). Conceptually the five-factor structure bears a lot of resemblance to that of Scherer and Nakamura (1968). It has been shown that the factor structure is fairly robust across gender, age and nationality (Ollendick et al., 1989).

The problem with the fear survey schedule for children by Scherer and Nakamura (1968) is that it lacks normative data, test-retest reliability and information about its construct validity (Ollendick, 1983).

In a study by Ollendick (1983) the reliability and validity of the revised fear survey schedule for children was explored. It was found that the FSSC-R possessed a high internal consistency, high test-retest reliability as well as having as acceptable stability over time. It was also found to discriminate adequately between normal and clinical samples, having acceptable convergent and discriminant validity as well as a meaningful factor structure.

Over the years further research using the FSSC-R and its adaptations has been conducted either to determine its psychometric property or for fear assessment purposes.

The psychometric properties include internal consistency test-retest reliability and construct validity (Gullone & King, 1992; Ollendick et al., 1985a, 1989). In a study by Ollendick et al. (1996) high internal consistency estimates have been found for American ([FP1]α= 0.95), Australian (α= 0,96), Chinese (α= 0,96) and Nigerian (α= 0,95) children and adolescents. The test-retest reliability estimates have been demonstrated across varying intervals of time. It has been demonstrated that when the scores are elevated, they are associated with heightened levels of anxiety and depression (Dong et al., 1994; Ollendick et al., 1991) and with external locus of control orientations and low self-concept (Ollendick, 1983). It was found useful in identifying fears in normal children as well as differentiating among anxiety disorders in

children (Ollendick et al., 1989). The scores of the FSSC-R were shown to be inversely (negatively) related to self-concept as well as internal locus of control but directly (positively) related to trait anxiety (Ollendick, 1983). It has been shown to be a useful research instrument in countries very different from the one for which it was originally developed (Fonseca et al., 1994), and is thus cross-culturally suitable.

The advantages of self-report instruments such as the FSSC-R are that they are flexible, cheaper, time-effective, can cover a large number of items, provide information on the intensity of fears and can be administered to a large range of ages (Fonseca et al., 1994) as well as convenient (Lane & Gullone, 1999). They may also be useful in helping to assess a child's level of fear and anxiety. Self-report ranking scales are also important, in that they can be employed as therapy outcome measures as well as epidemological instruments (Muris et al., 1998a). The instrument can also be objectively scored, minimising any possible influence by assessor bias (Lane & Gullone, 1999).

It is imperative to note, however, that the item content of the FSSC-R has not been changed since it was originally developed by Scherer and Nakamura (1968). Consequently the content validity needs to be revised if further normative studies are to provide an accurate and comprehensive account of children's fears (Gullone & King, 1992). In a study by Gullone and King (1992), the aforementioned issues were addressed by testing a second revision of the FSSC-R. The issues were addressed by including more recently occurring and socially significant events such as nuclear war and AIDS, which could be likely foci of children's fears. The three-point scale was changed as well, from 1= not scared to 3= very scared. The second revision of the FSSC-R proved to have sound psychometric properties as well as being able to investigate normative fear changes from childhood to the end of adolescence (Burnham & Gullone, 1997).

McCathie and Spence (1991) investigated criticism concerning the validity of the data yielded by the FSSC-R. They administered Ollendick’s (1983) FSSC-R to children between the ages of 7 and 13 with standard instructions as well as administering an adapted version of the FSSC-R (Fear Frequency and Avoidance Fear Survey Schedule, FFASSC) to the same students. The findings indicated that no significant differences were reported between the FSSC-R and FFASSC responses. McCathie and Spence (1991) argue that the children tended to respond to the fear questionnaire items according to their affective responses to the image

or thought of the stimulus situation instead of giving their actual fear responses.

Further criticism regarding the FSSC-R is that it is mundane and that daily fears are overshadowed and undershaded; that self-report information provides a limited view of fearfulness and that the data reported, is limited to children's reports of fear in response to a specific event which is often unlikely to occur. Thus, it tends to reflect a negative affective response to the thought of the occurrence of specific events and is not situation specific, addressing more global states of fear and anxiety (King et al., 1989; McCathy & Spence, 1991; Murdoch James et al., 1994).

With regard to the criticism that children are reflecting only their response to the thought of occurrence of a specific event, one has to realise that the fear rank orders may reflect only the fears that children have towards the most negative attitude. A way in which a solution for this problem can be found is to ask the children what they fear most without limiting their options. In the present study this was in part addressed by the semi-structured interviews, where children were asked of what they were most afraid.

The results of a study by Muris et al. (1997b) demonstrated that fear rank orders depend on the instrument being used and results further showed that the order in which the self-report instruments are used, for example the FOM and FSSC-R can also influence the fear ranking order due to the carry-over effect. This would make them lacking in discriminant validity (Muris et al., 1998b).

In a study by Muris et al. (1998a), it was found that although the FSSC-R has proven to be successful in assessing general fearfulness in children and that it can be used to measure the efficacy of a treatment, it seems to be less useful in diagnostic processes where it is required to differentiate among various anxiety disorder subtypes in children. In the present study children were assessed for general fearfulness and not for diagnostic purposes.

In the present study, reliability and factor analysis were conducted in order to explore internal consistency and construct validity of the adapted FSSC-R. The content of fears, was determined by the fears which were rated ‘a lot’ being the highest frequency. The number of fears referred to the number of items which were endorsed ‘a lot’ by an individual. The level of fear was determined by the sum of the responses to the 74 items on the FSSC-R and the

pattern of fear was derived from the factor scale scores.

In conclusion the FSSC-R continues to be used today and has proven psychometric properties. Undeniably there has been a call for content changes.

5.5 Research procedure

The Western Cape Education Department was approached with the request to grant permission to conduct the study (Addendum A). Once permission was granted by the Western Cape Education Department (Addendum B) further planning of the research commenced. Contact was made with the relevant teachers as well as caregivers (Addenda C & D) in order to discuss the research and also to obtain their permission to complete the research on the institution's premises and to identify learners who fall within the perimeters of the target group. The final sample for phase 1 (Semi-structured interviews) and phase 2 (administering the extended FSSC-R) of the research was compiled of children for whom parental permission to conduct the interview and completion of the extended fear schedule respectively, were obtained.

The researcher and assistant familiarized themselves with the respective testing locations before testing commenced. The Phase 1 (semi-structured interviews) and 2 (administering the FSSC-R) was conducted in an environment familiar to the child.

The schools where the testing took place were selected according to cultural availability. In each school a period was allocated by the principals, as the time-slot during which the questionnaires could be administered.

The study was cross-sectional in nature, obtaining normative data and was conducted in English, Afrikaans and Xhosa, as they are the official languages of instruction in South African schools. The FSSC-R was translated into Afrikaans and Xhosa using the Brislin back translation method (Brislin, 1980), which resulted in the rewording of three items. Item 17 was changed from 'being left at home with a sitter' to 'being left at home with a babysitter'. Item 21 was changed from 'getting a shot from the nurse or doctor' to 'getting an injection from the nurse or doctor'. Lastly, item 43 was changed from 'playing rough games during recess' to 'playing rough games during break'.

During Phase 1, semi-structured interviews were conducted in an environment familiar to the child as well as it being private and quiet. The researcher, who conducted 30 interviews, and assistant, who conducted the remaining 10 interviews, for the Xhosa-speaking respondents commenced each research session with a motivational talk (see Addendum E). This was done in order to create a non-intimidating, child-friendly environment. The researcher and assistant then proceeded with the questions regarding what they fear at their tempo. The necessary biographical information was obtained from each participant. A total of 40 interviews were conducted, 30 by the researcher and 10 by the assistant. Both followed the same format (see Addendum F). On average each semi-structured interview lasted for approximately 25 minutes.

As previously mentioned the transcribed semi-structured interviews were analysed for emerging themes by entering them into ATLAS.Ti (Muhr, 1997). Those items which were endorsed 'a lot' more than once were mainly identified as additional items. However, items which were mentioned to frighten children 'a bit' were also considered such as with the items 'mommy and daddy fighting' and 'baboons'. The item 'getting HIV' was included despite it only being mentioned once, since it was thought to be of relevance to the South African context due to the AIDS epidemic (Kauffmann, 2000). Furthermore, those items that were identified as additional items but which were already present on the FSSC-R with nearly identical wording were discarded from the list. During this process, the actual children' wording was used were possible.

The emerging themes resulted in additional South African items. These items were added to the existing FSSC-R. A total of 17 items were added and include the following: watching scary movies, to walk alone at night, the possibility of being in an accident, getting HIV, being alone in the dark, crocodiles, to be alone, having bad dreams, chameleons, tigers, lions, shots being fired in the neighbourhood, mommy and daddy fighting, baboons, elephants, gorillas and sharks (see Addendum I). During the process of deciding upon the additional items, extensive consultation with the promoters ensued. Dr Loxton has experience regarding fears and children (Burkhardt et al., 2003, Loxton, 2004; Muris et al., 2006) and Professor Kagee has experience with the construction and validation of scales (Kagee, 2005).

During Phase 2, a biographical questionnaire was applied first and was completed by the

children themselves. This final sample consisted of 646 middle childhood children. The information gathered was used to establish and investigate the patterns which emerged as well as to determine the independent variables. Standard test instructions were followed at each school during testing and no time limited was set.

The extended FSSC-R was administered afterwards and consisted of 97 items, where the children had to indicate how much they feared the specific item. The options were 'none', 'some' and 'a lot'. The participants were asked to read each item carefully along with the researcher/assistants and to mark with an X, the box which best described how much fear they experienced with regard to the specific item. The children were informed that there were no right or wrong answers. The researcher/assistants were present during the entire time of testing, providing assistance, clarifying questions as far as possible and ensuring independent as well as confidential responses. The language of instruction of the questionnaires depended on each respondent's home language.

Before testing commenced, confidentiality was explained in a child-friendly manner and guaranteed. The participants were motivated by being told how important their input regarding the fears they experience is and the role they play in helping other children by means of implementation and designing effective prevention programmes. The researcher tried to put the participants at ease by being open and friendly as well as providing information about the test and further procedures. Optimal physical conditions were also aimed at by ensuring good lighting, sufficient room to be comfortable while answering the questionnaires and providing adequate testing materials. These are guidelines to good testing suggested by Brown (1983) and Dadds et al. (2000). In addition, standard test instructions were adhered to. The researcher and all the assistants were provided with a copy of standard test instructions and procedure (see Addendum G).

The time of testing varied between 30 minutes and an hour and a half. As the completed questionnaires were collected from each child they were checked for incompleteness. If an item was found to be blank, the child was asked to complete it without further elaboration. This reduced the number of questionnaires that needed to be discarded and resulted in a larger sample, which is of importance. Once data collection was completed the questionnaires were sorted and classified into valid or invalid categories. Any questionnaires that were incomplete, despite the earlier checking process, were discarded. Furthermore, individual names were

coded into an identification number to ensure confidentiality.

Bensen and Clark's (1982) guide for instrument development and validation as well guidelines in scale development by DeVellis (2003) were followed and consulted. This entailed a planning phase, construction phase where an item pool is determined and then items are selected which are then administered during the next phase. The last phase would be further validation of the instrument, in this case the extended FSSC-R, and this is recommended for future research. It is important to take note that the validation of a newly developed instrument is seldomnly accomplished through one study or by one researcher (Bensen, & Clark, 1982).

5.6 Data analysis

Data was collected qualitatively as well as quantitatively.

The semi-structured interviews were transcribed verbatim and translated where necessary. The transcribed interviews were then entered into ATLAS.Ti (Muhr, 1997) to assist with the analysis. The data was coded using existing categories for content as guidelines (Burkhardt, 2003; Bauer, 1976; Derevensky, 1979; Draper & James, 1985; Jerslid & Holmes, 1935a; Maurer, 1965). Mainly the fear responses which indicated a lot of fear were utilised, but fears that were also indicated to result in a bit of fear were considered and emerging themes were analysed (Addendum I). A total of 17 items were then generated from an item pool to be added to the existing FSSC-R and resulted in an extended FSSC-R. These items were added at the end of the FSSC-R and were: watching scary movies, to walk alone at night, the possibility of being in an accident, getting HIV, being alone in the dark, crocodiles, to be alone, having bad dreams, chameleons, tigers, lions, shots being fired in the neighbourhood, mommy and daddy fighting, baboons, elephants, gorillas and sharks. The extended FSSC-R was then administered.

Item analysis was conducted and corrected item-total correlation coefficients were calculated for the overall sample and those items with an item-total correlation of less than 0.40 were deleted. In studies by Gullone and King (1992) and Burnham (2005) this cut-off point was used. Furthermore, Gliem and Gliem (2003) also recommended it. There was one item, where an exception was made, due to the relevance it has in today's society. This item has also been

reported as a common fear in previous studies (Gullone & King, 1993; Lane & Gullone, 1999; Muris & Ollendick, 2002). This item was being afraid of getting AIDS. A total of 23 items were deleted.

The extended FSSC-R consisted of 97 items, yielding a subject-to variable (STV) ratio of 6,6. Bryant and Yarnold (2000) suggested that the STV should be 5 or greater in order to have sufficient statistical power to support factor analysis. A final total of 74 items remained yielding a STV ratio of 8,7.

Exploratory factor analysis (principal component analyses) with varimax rotation was calculated since factor analysis has important implications for an instrument's construct validity. According to Gorusch (1997) exploratory factor analysis should be utilised when a study is explorative in nature. In the present study new items as well as a new population were involved which substantiated the utilisation of exploratory factor analysis. This matter was further discussed with Professor T.H. Ollendick (via e-mail, personal communication, November 28, 2006) before it was proceeded. The suitability of varimax rotation has been commented on by Burnham and Gullone (1997) who have argued that the factors do correlate. They also stated that there is no empirical evidence to suggest that the factors are uncorrelated. They consequently conducted principal component analysis with both varimax and oblique rotations to determine the factor structure of the FSSC-II. They found that a five-factor solution was the most meaningful and also found that regardless whether they used the oblique or orthogonal rotation method, the solutions were almost identical. They thus chose to report and interpret their orthogonal/varimax solution.

Varimax rotation in the present study was utilised for comparative and consistency purposes. Ollendick (1983) made use of varimax rotation during his first study regarding the FSSC-R. In a recent study in Greece by Mellon et al. (2004) a principal component analysis with varimax rotation was performed. This study attempted to explore the cultural generalities and idiosyncrasies in the factor of self-reported fears of children who live in Eastern Mediterranean and Balkan countries. Since the present study has similar aims, the statistical proceedings by Mellon et al. (2004) were used as a guideline. Furthermore, in a study by Burnham (2005) a principal components analysis with varimax rotation was utilised in order to replicate Gullone and King's (1992, 1993) studies.

Furthermore, the study by Fisher et al. (2006) was used as a guideline when interpreting the factors. In their study salience was defined as a loading greater than or equal to 0,32 on a factor and in order for a factor to be meaningful it had to have a minimum of three salient, non-complex items. Comrey and Lee (quoted in Fisher et al., 2006) indicated that if complex items are included in factor analysis, they should not be used to define a factor. Gorusch (1997) suggested that a trivial factor, which is a factor that lacks salient variables as a result of either too few item loadings on a factor or its items have higher loadings on other factors. The above-mentioned was taken into consideration during the interpretation of the different factor solutions, in the present study.

The data collected by means of the adapted FSSC-R was used in order to determine the content, number, level and pattern of fear. The content of fears, especially the ten most common fears, were derived from the fears rated ‘a lot’ with the highest frequency. The number of fears (i.e., the number of items endorsed ‘a lot’ for each individual) as well as level of fear (i.e., the sum of the responses to the 97 items) was explored by means of a factorial ANOVA. Any significant differences regarding the total number of fears were also investigated. A factorial MANOVA was conducted on the five-factor scale scores to determine if significant differences with respect to the pattern of fear, the sum of responses to the items contained on each of the five factors, were apparent.

All the above-mentioned analyses were done by using the statistical package for social science (SPSS, George & Mallery, 2006).

5.7 Ethics and related matters

5.7.1 Ethics

One of the first principles of any research with children, is that of non-harmful procedures both physically and psychologically (American Psychological Association, 1992). The children were not placed under any physical risk in the research. On a psychological level, the semi-structured interviews as well as the fear questionnaires might have been experienced as disturbing or even threatening. In order to eliminate this possibility, great care was taken with the process of data collection. This meant that only students, with at least an honours degree in psychology, were asked to be assistants during the research. Furthermore, due to the

sensitive nature of the semi-structured interviews only the researcher, a registered and practicing Counselling Psychologist, and a master student in psychology with experience in conducting semi-structured interviews, facilitated this process. This and the afore-mentioned ensured that the participants were closely monitored for any signs of distress or discomfort, enabling the researcher as well as assistants to react accordingly.

5.7.2 Consultations

Professor T.H. Ollendick, from the Child Study Centre, Virginia, Polythenic Institute and State University in the USA, was consulted with respect to obtaining permission to adapt the FSSC-R as well as with respect to his expertise on childhood measures, the FSSC-R and relevant methodology.

5.8 Chapter summary

Throughout chapter 5, the methodology with regard to data collection and analysis was outlined. The discussion started with an introduction, followed by the research design which contained a summary of the outlined process in Figure 5.1. Demographic information regarding the participants was also provided. This was followed by a discussion of the measuring instruments, starting with the biographical questionnaire, followed by the semi-structured interview and lastly the FSSC-R. The research procedure and data analysis was then discussed in greater detail. The chapter was concluded by outlining ethics and the consultation with Professor T.H. Ollendick.

The quantitative results are reported in chapter 6 with regard to the reliability and factor analysis as well as the content, number and level of fears and pattern of fears.

CHAPTER 6
RESULTS

In this chapter more detailed information regarding the demographics of the sample is provided. Furthermore, the quantitative data starting with reliability analyses followed by exploratory factor analyses with varimax rotation, content of fear, number and level of fear and pattern of fear is reported. The effects of gender and culture are represented with respect to the content, number, level and pattern of fear.

Neither culture nor gender was equally represented. This was taken into consideration and provision was made for this.

6.1 Demographic data

Demographic data regarding the final sample is provided in order to contextualise the sample and as such, to provide a background from which the results are interpreted.

The participants included 327 (50,62%) boys and 319 (49,38%) girls participants. The different cultural groups were represented in the following way: 153 (23,68%) black South African children (76-11,76% boys and 77-11,92% girls), 288 coloured (44,58%) South African children (138-21,36% boys and 150-23,22% girls) and 205 (31,73%) white South African (105-16,25% boys and 100-15,48% girls) .

Further biographical and other relevant data of the participants of the present study are reflected in the following figures and refer to gender and culture.

The age distribution of the 646 participants is shown in Figure 6.1.

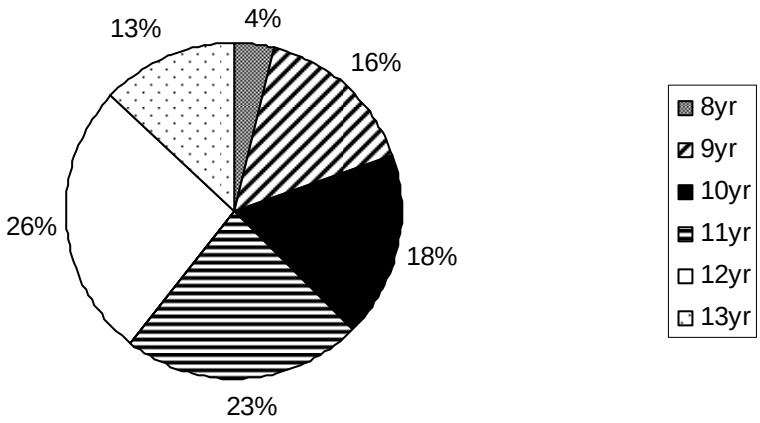


Figure 6.1 Age distribution of the participants

The gender distribution of the 646 participants is shown in Figure 6.2.

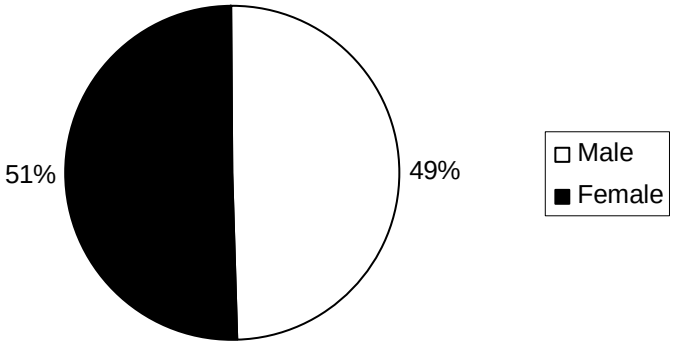


Figure 6.2 Gender distribution of participants

The cultural distribution of the 646 participants is depicted in figure 6.3.

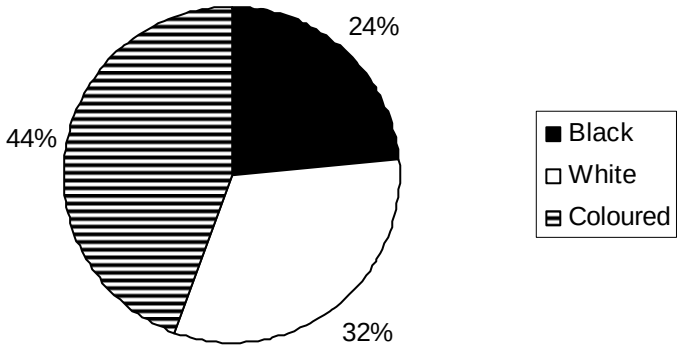


Figure 6.3 Cultural distribution

6.2 Psychometric reliability assessment

Item analysis was conducted and the corrected item-total correlation coefficients were calculated for the overall sample and those items with an item-total correlation of less than 0.40 were deleted. Item-by-item analyses for the 97 items are presented in Table 4.

Table 4

Item-Total Correlations and Cronbach's Alpha if the Respective Item is Deleted for all the 97 Items

Item	Item-total correlation	α-iid
1-Giving an oral report	0,23	0.97
2-Riding in the car or bus	0,25	0,97
3-Getting punished by mother	0,37	0,97
4-Lizards	0,52	0,97
5-Looking foolish	0,36	0,97
6-Ghosts or spooky things	0,58	0,97
7-Sharp objects	0,49	0,97
8-Having to go to the hospital	0,44	0,97
9-Death or dead people	0,53	0,97
10-Getting lost in a strange place	0,49	0,97
11-Snakes	0,53	0,97
12-Talking on the telephone	0,23	0,97
13-Roller coaster or carnival rides	0,41	0,97
14-Getting sick at school	0,45	0,97
15-Being sent to the principal	0,32	0,97
16-Riding on the train	0,33	0,97
17-Being left at home with a babysitter	0,37	0,97
18-Bears or wolves	0,55	0,97
19-Meeting people for the first time	0,38	0,97
20-Bobing attacks-being invaded	0,47	0,97
21-Getting an injection from the nurse or doctor	0,44	0,97
22-Going to the dentist	0,46	0,97
23-High places like mountains	0,52	0,97
24-Being teased	0,38	0,97
25-Spiders	0,53	0,97
26-A thief breaking into our house	0,56	0,97
27-Flying in a plane	0,43	0,97
28-Being called on by the teacher	0,26	0,97
29-Getting poor grades	0,39	0,97
30-Bats or birds	0,51	0,97
31-My parents criticising me	0,46	0,97
32-Guns	0,57	0,97
33-Being in a fight	0,52	0,97
34-Fire-getting burned	0,45	0,97
35-Getting a cut or injury	0,62	0,97
36-Being in a big crowd	0,48	0,97
37-Thunderstorm	0,59	0,97
38-Having to eat foods that I don't like	0,39	0,97
39-Cats	0,36	0,97
40-Failing a test	0,40	0,97
41-Being hit by a car or truck	0,42	0,97
42-Having to go to school	0,14	0,97
43-Playing rough games during break	0,56	0,97
44-Having my parents argue	0,49	0,97
45-Dark rooms or closets	0,58	0,97

Table 4 continued

Item	Item-total correlation	α-iid
46-Having to put on a recital	0,41	0,97
47-Ants or beetles	0,44	0,97
48-Being criticised by others	0,46	0,97
49-Strange looking people	0,57	0,97
50-The sight of blood	0,53	0,97
51-Going to the doctor	0,35	0,97
52-Strange or mean looking dogs	0,61	0,97
53-Cemetries	0,60	0,97
54-Getting a report card	0,32	0,97
55-Getting a haircut	0,32	0,97
56-Deep water or the ocean	0,57	0,97
57-Nightmares	0,70	0,97
58-Falling from high places	0,56	0,97
59-Getting a shock from electricity	0,56	0,97
60-Going to bed in the dark	0,52	0,97
61-Getting car sick	0,56	0,97
62-Being alone	0,58	0,97
63-Having to wear clothes different from others	0,39	0,97
64-Getting punished by my father	0,50	0,97
65-Having to stay after school	0,47	0,97
66-Making mistakes	0,53	0,97
67-Mystery movies	0,52	0,97
68-Loud sirens	0,52	0,97
69-Doing something new	0,32	0,97
70-Germs or getting a serious illness	0,55	0,97
71-Closed spaces	0,66	0,97
72-Earthquakes	0,56	0,97
73-A foreign country	0,44	0,97
74-Elevators	0,43	0,97
75-Dark places	0,64	0,97
76-Not being able to breathe	0,50	0,97
77-Getting a bee sting	0,59	0,97
78-Worms or snails	0,50	0,97
79-Rats or mice	0,57	0,97
80-Taking a test	0,42	0,97
81-Watching scary movies	0,58	0,97
82-To walk alone at night	0,66	0,97
83-The possibility of being in an accident	0,60	0,97
84-Getting HIV	0,39	0,97
85-Being alone in the dark	0,70	0,97
86-Crocodiles	0,60	0,97
87-To be alone	0,61	0,97
88-Having bad dreams	0,65	0,97
89-Chameleons	0,56	0,97
90-Tigers	0,58	0,97
91-Lions	0,58	0,97
92-Shots being fired in the neighbourhood	0,59	0,97
93-Mommy and daddy fighting	0,54	0,97

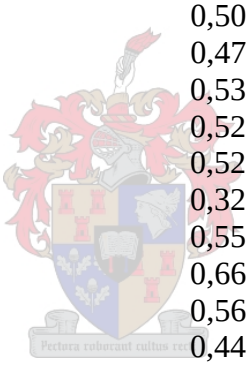


Table 4 continued

Item	Item-total correlation	α-iid
94-Baboons	0,57	0,97
95-Elephants	0,52	0,97
96-Gorillas	0,58	0,97
97-Sharks	0,59	0,97
Overall Cronbach's alpha		0,97

Items with an item-total correlation of 0,40 were deleted. These included: Items 1 (Giving an oral report), 2 (Riding in the car or bus), 3 (Getting punished by my mother), 5 (Looking foolish), 12 (Talking on the telephone), 15 (Being sent to the principal), 16 (Riding on the train), 17 (Being left at home with the babysitter), 19 (Meeting someone for the first time), 24 (Being teased), 28 (Being called on by my teacher), 29 (Getting poor grades), 38 (Having to eat some food I don't like), 39 (Cats), 40 (Failing a test), 42 (Having to go to school), 51 (Getting a haircut), 54 (Getting a report card), 55 (Getting a haircut), 63 (Having to wear clothes different from others) and 69 (Doing something new). Items 44 (Having my parents argue) and 67 (Mystery movies) were also deleted after careful consideration since these items are very similar in content to items 94 (Mommy and daddy fighting) and 81 (scary movies). Item 84 was retained, even though it scored below the 0,40 cut off point. This will be further elaborated on the next chapter. A total of 23 items were deleted.

Internal consistency of self-reports of fears of the 74 remaining items was evaluated by using Cronbach's formula, yielding a coefficient of 0,97, which was nearly identical to internal consistency coefficients observed with the FSSC-R (Ollendick et al., 1991, 1983). Item-by-item descriptive analyses for the remaining 74 are presented in Table 5.

Table 5
Item-Total Correlations and Cronbach's Alpha if the Respective Item is Deleted for the 74 Items

Item	Item-total correlation	α-iid
4-Lizards	0,51	0,97
6-Ghosts or spooky things	0,59	0,97
7-Sharp objects	0,48	0,97
8-Having to go to the hospital	0,42	0,97
9-Death or dead people	0,55	0,97
10-Getting lost in a strange places	0,50	0,97
11-Snakes	0,55	0,97
13-Roller coaster or carnival rides	0,40	0,97
14-Getting sick at school	0,42	0,97
18-Bears or wolves	0,57	0,97
20-Bombing attacks-being invaded	0,50	0,97
21-Getting an injection from the nurse or doctor	0,43	0,97
22-Going to the dentist	0,44	0,97
23-High places like mountains	0,52	0,97
25-Spiders	0,53	0,97
26-A thief breaking into our house	0,58	0,97
27-Flying in a plane	0,43	0,97
30-Bats or birds	0,48	0,97
31-My parents criticising me	0,44	0,97
32-Guns	0,60	0,97
33-Being in a fight	0,52	0,97
34-Fire-getting burned	0,48	0,97
35-Getting a cut or injury	0,63	0,97
36-Being in a big crowd	0,46	0,97
37-Thunderstorms	0,59	0,97
41-Being hit by a car or truck	0,45	0,97
43-Playing rough games during break	0,55	0,97
45-Dark rooms or closets	0,58	0,97
46-Having to put on a recital	0,39	0,97
47-Ants or beetles	0,42	0,97
48-Being criticised by others	0,44	0,97
49-Strange looking people	0,57	0,97
50-The sight of blood	0,52	0,97
52-Strange or mean looking dogs	0,62	0,97
53-Cemetries	0,60	0,97
56-Deep water or the ocean	0,58	0,97
57-Nightmares	0,70	0,97
58-Falling from high places	0,59	0,97
59-Getting a shock from electricity	0,59	0,97
60-Going to bed in the dark	0,51	0,97
61-Getting car sick	0,56	0,97
62-Being alone	0,57	0,97
64-Getting punished by my father	0,49	0,97
65-Having to stay after school	0,45	0,97
66-Making mistakes	0,51	0,97

Table 5 continued

Item	Item-total correlation	α-iid
68-Loud sirens	0,51	0,97
70-Germs or getting a serious illness	0,57	0,97
71-Closed spaces	0,67	0,97
72-Earthquakes	0,59	0,97
73-A foreign country	0,44	0,97
74-Elevators	0,40	0,97
75-Dark places	0,64	0,97
76-Not being able to breathe	0,53	0,97
77-Getting a bee sting	0,59	0,97
78-Worms or snails	0,50	0,97
79-Rats or mice	0,57	0,97
80-Taking a test	0,39	0,97
81-Watching scary movies	0,57	0,97
82-To walk alone at night	0,66	0,97
83-The possibility of being in an accident	0,61	0,97
84-Getting HIV	0,42	0,97
85-Being alone in the dark	0,70	0,97
86-Crocodiles	0,63	0,97
87-To be alone	0,60	0,97
88-Having bad dreams	0,66	0,97
89-Chameleons	0,56	0,97
90-Tigers	0,60	0,97
91-Lions	0,61	0,97
92-Shots being fired in our neighbourhood	0,62	0,97
93-Mommmy and daddy fighting	0,53	0,97
94-Baboons	0,57	0,97
95-Elephants	0,54	0,97
96-Gorillas	0,61	0,97
97-Sharks	0,61	0,97
Overall Cronbach's alpha		0,97

The adapted FSSC-R will be further referred to as the South African Fear Survey Schedule for Children (FSSC-SA). This will be discussed in the next chapter.

6.3 Exploratory factor analyses (EFA)

An open-ended EFA was conducted in order to see how many factors emerge and have a eigenvalue of greater than one. The data regarding the open-ended factor solution is represented in Table 6.

Table 6

Principal-Components Analysis using Varimax Rotation for the Open-ended Factor Solution

Item number and item	Factor						
	I	II	III	IV	V	VI	VII
Item with a high loading for Factor 1							
76-Not being able to breathe	**0,71**	0,16	0,18	0,02	0,04	0,04	0,08
41-Being hit by a car or truck	**0,70**	0,01	0,09	0,06	0,10	0,10	0,04
59-Getting a shock from electricity	**0,68**	0,12	0,19	0,15	0,05	0,11	0,08
84-Getting HIV	**0,67**	0,02	0,23	0,01	-0,00	0,05	0,08
72-Earthquakes	**0,63**	0,18	0,27	-0,01	0,14	0,18	0,12
58-Falling from high places	**0,62**	0,20	0,22	0,06	0,09	-0,00	0,18
70-Germs or getting a serious illness	**0,58**	0,20	0,20	0,09	0,13	0,25	0,08
34-Fire-getting burned	**0,53**	0,19	0,10	0,05	0,26	-0,05	-0,11
83-The possibility of being in an accident	**0,51**	0,31	0,20	0,18	0,04	0,06	0,06
20-Bombing attacks-being invaded	**0,49**	0,05	0,19	0,02	0,38	0,06	-0,00
93-Mommy and daddy fighting	**0,47**	0,25	0,13	0,35	0,10	0,10	0,34
92-Shots being fired in the neighbourhood	**0,47**	0,25	0,37	0,14	0,11	0,16	0,04
26-A thief breaking into our house	**0,46**	0,18	0,22	0,05	0,28	-0,04	0,10
71-Closed spaces	**0,41**	0,36	0,23	0,12	0,14	0,32	0,19
35-Getting a cut or injury	0,38	0,24	0,10	0,26	0,24	0,35	0,12
32-Guns	0,37	0,11	0,28	0,20	0,29	0,20	0,10
Items with a high loading for Factor II							
85-Being alone in the dark	0,21	**0,69**	0,24	0,16	0,11	0,13	0,14
60-Going to bed in the dark	0,01	**0,66**	0,07	0,22	-0,03	0,06	0,15
75-Dark places	0,21	**0,66**	0,13	0,18	0,07	0,22	0,22
82-To walk alone at night	0,24	**0,65**	0,25	0,12	0,09	0,08	0,08
87-To be alone	0,07	**0,63**	0,19	0,13	0,09	0,09	0,10
45-Dark rooms or closets	0,20	**0,61**	0,08	0,21	0,18	0,18	0,04
62-Being alone	0,10	**0,56**	0,12	0,08	0,15	0,12	0,15
81-Watching scary movies	0,13	**0,52**	0,13	0,33	0,11	0,17	0,05
88-Having bad dreams	0,24	**0,51**	0,24	0,30	0,16	0,14	0,08
57-Nightmares	0,30	**0,51**	0,13	0,28	0,17	0,17	0,13
53-Cemetries	0,26	**0,50**	0,08	0,16	0,20	0,08	0,14
61-Getting car sick	0,20	0,38	0,08	0,38	0,12	0,27	0,09
56-Deep water or the ocean	0,28	0,35	0,20	0,16	0,15	0,09	0,34
37-Thunderstorms	0,23	0,35	0,16	0,29	0,19	0,15	0,19
43-Playing rough games during break	0,25	0,29	0,04	0,25	0,19	0,24	0,23
Items with a high loading for Factor III							
90-Tigers	0,31	0,12	**0,74**	0,09	0,10	0,13	0,11
96-Gorillas	0,28	0,18	**0,74**	0,17	0,05	0,03	0,06
91-Lions	0,35	0,13	**0,72**	0,11	0,11	0,12	0,12
86-Crocodiles	0,37	0,16	**0,64**	0,17	0,26	0,07	0,09
95-Elephants	0,12	0,18	**0,63**	0,22	0,05	0,04	0,12
97-Sharks	0,42	0,20	**0,60**	0,06	0,05	0,06	0,07

Table 6 continued

Item number and item	Factor						
	I	II	III	IV	V	VI	VII
94-Baboons	0,17	0,25	**0,56**	0,25	0,03	0,13	0,14
11-Snakes	0,22	0,12	**0,50**	0,21	0,27	-0,07	0,04
18-Bears or wolves	0,35	0,03	**0,46**	0,10	0,42	0,11	0,10
Items with high loading for Factor IV							
78-Worms or snails	0,06	0,21	0,16	**0,66**	0,06	0,19	0,08
79-Rats or mice	0,17	0,21	0,25	**0,64**	0,06	-0,06	0,17
89-Chameleons	0,01	0,30	0,26	**0,62**	0,16	0,13	0,03
4-Lizards	0,03	0,19	0,18	**0,61**	0,26	-0,03	0,06
30-Bats or birds	-0,02	0,21	0,18	**0,55**	-0,01	0,10	0,14
47-Ants or beetles	0,03	0,17	0,04	**0,51**	-0,03	0,09	0,23
77-Getting a bee sting	0,32	0,32	0,15	**0,42**	0,02	0,16	0,10
25-Spiders	0,09	0,18	0,29	0,34	0,22	0,02	-0,04
68-Loud sirens	0,18	0,30	0,06	0,32	0,03	0,23	0,12
Items with high loading for Factor V							
7-Sharp objects	0,08	0,16	0,14	0,13	**0,62**	0,22	0,17
9-Death or dead people	0,30	0,19	0,11	0,13	**0,61**	0,08	0,12
10-Getting lost in a strange place	0,34	0,15	0,23	-0,01	**0,53**	0,08	0,07
6-Ghosts or spooky things	0,15	0,42	0,14	0,26	**0,50**	0,04	0,13
Items with a high loading for Factor VI							
65-Having to stay after school	0,07	0,25	0,12	0,08	0,11	**0,59**	-0,02
66-Making mistakes	0,12	0,25	0,09	0,24	0,03	**0,58**	0,14
64-Getting punished by my father	0,31	0,28	0,10	0,02	0,13	**0,50**	0,09
46-Having to put on a recital	0,03	0,11	0,18	0,07	0,05	0,39	0,22
14-Getting sick at school	0,09	0,13	-0,02	0,30	0,30	0,38	0,12
Items with a high loading for Factor VII							
73-A foreign country	0,18	0,07	0,23	0,02	0,05	0,14	**0,65**
74-Elevators	0,03	0,18	0,09	0,13	0,08	0,13	**0,60**
27-Flying in a plane	0,17	0,19	0,08	0,13	0,04	0,01	**0,58**
13-Roller coaster or carnival rides	0,09	0,19	0,08	0,23	0,22	0,01	**0,46**
23-High places like mountains	0,09	0,26	0,20	0,12	0,24	0,00	**0,42**
Items with a high loading for Factor VIII							
48-Being criticised by others	0,17	0,12	0,04	0,17	0,08	0,10	0,07
33-Being in a fight	0,28	0,11	0,26	0,17	0,12	0,13	0,01
36-Being in a big crowd	-0,02	0,33	0,25	-0,01	0,08	0,17	0,22
49-Strange looking people	0,28	0,34	0,09	0,11	0,14	0,01	0,30
31-My parents criticising me	0,27	0,05	0,03	0,26	0,09	0,26	-0,09
52-Strange or mean looking dogs	0,33	0,25	0,27	0,25	0,14	0,04	0,13
Items with a high loading for Factor IX							
21-Getting an injection from the nurse or doctor	0,22	0,18	0,05	0,09	0,01	0,02	0,07
22-Going to the gym	0,10	0,22	0,08	0,19	-0,02	0,18	0,16

Table 6 continued

Item number and item	Factor						
	I	II	III	IV	V	VI	VII
8-Having to go to the hospital	0,11	0,13	0,06	0,12	0,19	0,16	0,19
Items with a high loading for Factor X							
50-The sight of blood	0,13	0,31	0,08	0,24	0,13	0,24	-0,03
Items with a high loading for Factor XI							
80-Taking a test	0,06	0,12	0,04	0,30	0,01	0,32	0,19
Eigenvalue	7,45	6,90	5,48	4,57	2,99	2,80	2,71
Percent of variance	10,06	9,37	7,41	6,17	4,04	3,78	3,66

Item number and item	Factor			
	VIII	XI	X	XI
Item with a high loading for Factor 1				
76-Not being able to breathe	0,11	0,01	-0,00	0,06
41-Being hit by a car or truck	0,04	0,01	0,13	0,05
59-Getting a shock from electricity	0,14	0,07	0,01	-0,07
84-Getting HIV	-0,03	0,09	-0,17	-0,09
72-Earthquakes	0,00	0,11	0,02	0,03
58-Falling from high places	0,12	0,11	-0,03	0,04
70-Germs or getting a serious illness	0,07	0,08	-0,25	-0,11
34-Fire-getting burned	0,18	0,11	0,19	-0,02
83-The possibility of being in an accident	0,09	0,21	0,00	0,07
20-Bombing attacks-being invaded	0,14	0,08	0,11	0,13
93-Mommy and daddy fighting	0,03	0,00	0,04	0,21
92-Shots being fired in the neigh-bourhood	-0,04	0,15	0,02	0,11
26-A thief breaking into our house	0,30	0,09	0,17	0,22
71-Closed spaces	0,18	-0,03	0,05	-0,04
35-Getting a cut or injury	0,09	0,13	0,12	-0,18
32-Guns	-0,03	0,18	0,25	-0,08
Items with a high loading for Factor II				
85-Being alone in the dark	0,06	0,14	0,02	0,09
60-Going to bed in the dark	0,14	0,12	0,06	-0,10
75-Dark places	-0,00	0,03	0,00	-0,04
82-To walk alone at night	0,11	0,14	-0,05	0,13
87-To be alone	0,21	0,17	-0,07	0,30
45-Dark rooms or closets	0,02	0,01	0,16	-0,08
62-Being alone	0,18	0,20	-0,02	0,29
81-Watching scary movies	0,02	0,09	0,02	0,13
88-Having bad dreams	0,08	0,09	-0,08	-0,08
57-Nightmares	0,22	0,09	0,08	-0,08
53-Cemetries	0,04	0,18	0,32	-0,00
61-Getting car sick	0,00	0,08	0,07	-0,02

Table 6 continued

Item number and item	Factor			
	VIII	XI	X	XI
56-Deep water or the ocean	0,04	0,07	0,06	-0,07
37-Thunderstorms	0,09	0,08	0,12	-0,09
43-Playing rough games during break	0,23	0,01	-0,05	-0,11
Items with a high loading for Factor III				
90-Tigers	0,04	0,10	0,00	-0,08
96-Gorillas	0,07	0,11	-0,03	0,04
91-Lions	0,00	0,05	0,01	-0,05
86-Crocodiles	0,04	0,01	-0,07	-0,09
95-Elephants	0,17	-0,05	0,10	0,09
97-Sharks	0,10	0,07	0,06	0,16
94-Baboons	0,09	-0,06	0,12	0,03
11-Snakes	0,07	0,32	-0,02	0,06
18-Bears or wolves	0,09	0,08	0,08	0,04
Items with high loading for Factor IV				
78-Worms or snails	0,01	-0,01	0,08	0,10
79-Rats or mice	0,08	0,11	-0,04	0,21
89-Chameleons	0,04	0,10	-0,04	-0,01
4-Lizards	0,14	0,20	-0,13	0,04
30-Bats or birds	0,18	0,12	0,18	-0,01
47-Ants or beetles	0,14	0,06	0,39	-0,04
77-Getting a bee sting	0,10	0,15	-0,09	-0,14
25-Spiders	0,16	0,31	0,29	0,17
68-Loud sirens	0,23	0,06	-0,01	0,14
Items with high loading for Factor V				
7-Sharp objects	0,12	0,01	-0,02	-0,04
9-Death or dead people	0,01	0,10	0,11	0,08
10-Getting lost in a strange place	0,17	0,05	-0,15	0,06
6-Ghosts or spooky things	0,00	0,06	0,11	-0,06
Items with a high loading for Factor VI				
65-Having to stay after school	0,14	0,17	0,09	-0,03
66-Making mistakes	0,03	0,13	-0,03	0,21
64-Getting punished by my father	0,11	-0,04	0,06	0,01
46-Having to put on a recital	0,01	0,21	0,33	0,17
14-Getting sick at school	0,14	0,13	-0,24	0,02
Items with a high loading for Factor VII				
73-A foreign country	0,20	0,01	-0,18	0,07
74-Elevators	0,04	0,08	0,08	0,23
27-Flying in a plane	-0,00	0,16	0,17	0,01
13-Roller coaster or carnival rides	0,03	0,12	-0,07	-0,13
23-High places like mountains	0,12	0,17	0,32	-0,09

Table 6 continued

Item number and item	Factor			
	VIII	XI	X	XI
Items with a high loading for Factor VIII				
48-Being criticised by others	**0,69**	0,15	-0,06	0,16
33-Being in a fight	**0,48**	0,11	0,14	-0,13
36-Being in a big crowd	**0,45**	0,16	-0,04	-0,22
49-Strange looking people	**0,44**	-0,02	0,05	0,11
31-My parents criticising me	0,36	0,07	0,12	0,17
52-Strange or mean looking dogs	0,34	0,11	0,09	-0,14
Items with a high loading for Factor IX				
21-Getting an injection from the nurse or doctor	0,16	**0,69**	0,05	0,09
22-Going to the gym	0,07	**0,58**	-0,07	-0,09
8-Having to go to the hospital	0,02	**0,51**	0,10	0,06
Items with a high loading for Factor X				
50-The sight of blood	0,21	0,32	0,22	-0,05
Items with a high loading for Factor IX				
80-Taking a test	0,09	0,08	0,02	**0,50**
Eigenvalue	2,37	2,16	1,28	1,24
Percent of variance	3,21	2,92	1,72	1,67
Total Variance accounted for:	54,01			

Only factor loadings > 0,40 are highlighted

Table 6 indicates that 11 factors have an eigenvalue greater than one. Furthermore, some items scored below 0,40 and these were then allocated to the factor where the loading was the highest. There were also items that did not convincingly load onto one factor. Factor X and XI consist of only one item respectively, suggesting that these factors are not meaningful. This poses the question of them being trivial factors. Due to the above-mentioned, the eleven-factor solution was found to be unsuitable. This resulted in principal component analysis, where the factor number is specified, being conducted.

Principal component analysis with varimax rotation specifying 3, 5, 6 and 7-factor solutions were then conducted. These factor solutions were conducted because previous research explored similar factor solutions in order to determine which factor solution is the best conceptual fit (Fisher et al., 2006; Mellon et al., 2004; Ollendick, 1983; Shore & Rapport, 1998). Factor solutions were assessed regarding the amount of variance that was accounted

for as well as the interpretation of the actual factors. In addition, the conditions included a scree plot and eigenvalue greater than 1 criterion. The data regarding the three factor solutions is represented in Table 7.

Table 7

Principal-Components Analysis using Varimax Rotation for the Three-Factor Solution

Item number and item	Factor		
	I	II	III
Item with a high loading for Factor 1			
85-Being alone in the dark	**0,64**	0,31	0,21
75-Dark places	**0,64**	0,28	0,11
60-Going to bed in the dark	**0,65**	0,05	0,10
87-To be alone	**0,62**	0,18	0,16
57-Nightmares	**0,62**	0,36	0,16
81-Watching scary movies	**0,60**	0,16	0,18
62-Being alone	**0,60**	0,22	0,10
45-Dark rooms or closets	**0,59**	0,26	0,09
61-Getting car sick	**0,57**	0,21	0,14
82-To walk alone at night	**0,57**	0,34	0,21
89-Chameleons	**0,57**	-0,01	0,43
53-Cemetries	**0,56**	0,31	0,11
88-Having bad dreams	**0,55**	0,31	0,27
66-Making mistakes	**0,55**	0,19	0,05
50-The sight of blood	**0,54**	0,20	0,11
78-Worms or snails	**0,54**	-0,02	0,35
30-Bats or birds	**0,54**	-0,06	0,35
47-Ants or beetles	**0,52**	-0,05	0,23
68-Loud sirens	**0,52**	0,19	0,11
6-Ghosts or spooky things	**0,51**	0,26	0,22
37-Thunderstorms	**0,51**	0,27	0,22
43-Playing rough games during break	**0,50**	0,32	0,07
4-Lizards	**0,50**	0,02	0,39
77-Getting a bee sting	**0,50**	0,29	0,23
79-Rats or mice	**0,49**	0,07	0,47
35-Getting a cut or injury	**0,48**	0,44	0,11
65-Having to stay after school	**0,48**	0,22	0,01
22-Going to the gym	**0,46**	0,14	0,11
14-Getting sick at school	**0,46**	0,18	0,02
49-Strange looking people	**0,46**	0,37	0,11
80-Taking a test	**0,46**	0,06	0,09
23-High places like mountains	**0,44**	0,19	0,26
56-Deep water or the ocean	**0,44**	0,34	0,22
74-Elevators	**0,44**	0,08	0,14
25-Spiders	**0,42**	0,13	0,40
36-Being in a big crowd	**0,43**	0,18	0,17
8-Having to go to the hospital	**0,41**	0,18	0,09
48-Being criticised by others	**0,40**	0,27	0,06
13-Roller coaster or carnival rides	0,39	0,13	0,15
52-Strange or mean looking dogs	0,39	0,39	0,32
27-Flying in a plane	0,39	0,17	0,16
7-Sharp objects	0,38	0,29	0,15

Table 7 continued

Item number and item	Factor		
	I	II	III
46-Having to put on a recital	0,38	0,12	0,14
21-Getting an injection from the nurse or doctor	0,38	0,24	0,07
31-My parents criticising me	0,36	0,30	0,06
Items with a high loading for Factor II			
76-Not being able to breathe	0,13	**0,71**	0,12
72-Earthquakes	0,20	**0,70**	0,18
59-Getting a shock from electricity	0,20	**0,66**	0,20
41-Being hit by a car or truck	0,07	**0,65**	0,09
84-Getting HIV	-0,01	**0,65**	0,17
58-Falling from high places	0,22	**0,64**	0,20
70-Germs or getting a serious illness	0,25	**0,64**	0,12
20-Bombing attacks-being invaded	0,14	**0,59**	0,17
34-Fire-getting burned	0,18	**0,57**	0,11
26-A thief breaking into our house	0,27	**0,55**	0,22
10-Getting lost in a strange place	0,21	**0,53**	0,17
92-Shots being fired in the neigh-bourhood	0,28	**0,53**	0,32
93-Mommy and daddy fighting	0,33	**0,52**	0,05
71-Closed spaces	0,46	**0,51**	0,16
83-The possibility of being in an accident	0,36	**0,51**	0,21
18-Bears or wolves	0,17	**0,50**	0,44
32-Guns	0,32	**0,47**	0,28
64-Getting punished by my father	0,39	**0,44**	-0,03
9-Death or dead people	0,35	**0,44**	0,16
33-Being in a fight	0,30	0,38	0,26
73-A foreign country	0,28	0,29	0,21
Items with a high loading for Factor III			
96-Gorillas	0,17	0,38	**0,70**
90-Tigers	0,13	0,45	**0,67**
91-Lions	0,13	0,47	**0,66**
95-Elephants	0,24	0,22	**0,63**
86-Crocodiles	0,17	0,49	**0,61**
94-Baboons	0,32	0,24	**0,56**
11-Snakes	0,23	0,31	**0,55**
97-Sharks	0,17	0,51	**0,54**
Eigenvalue	13,26	10,24	5,86
Percent of variance	17,92	13,84	7,92
Total variance accounted for:	39,68		

Only factor loadings > 0,40 are highlighted

As can be seen by Table 7 there are items which fall below the 0,40 cut-off point that was used by Burnham and Gullone (1997). Furthermore, there are also items that load strongly on more than one factor. One factor clearly seemed consists of animal fears. Two factors consist of items that do not have a overtly logical relationship (see Table 7). Factor one seemed to be similar to the factor which entails fear of the unknown, which was identified by Ollendick (1983). While the second factor seemed to be similar to the factor of danger and death.

Since the first two factors did not really have one underlying theoretical construct the three-factor solution was found not to be suitable.

The five factor solution is represented in Table 8.

Table 8

Principal-Components Analysis using Varimax Rotation for the Five-Factor Solution

Item number and item	Factor				
	I	II	III	IV	V
Item with a high loading for Factor 1					
76-Not being able to breathe	**0,68**	0,21	-0,02	0,18	0,06
41-Being hit by a car or truck	**0,66**	0,07	0,05	0,10	0,07
72-Earthquakes	**0,65**	0,25	0,01	0,23	0,14
59-Getting a shock from electricity	**0,65**	0,20	0,12	0,22	0,06
84-Getting HIV	**0,62**	0,12	-0,10	0,25	0,00
20-Bombing attacks-being invaded	**0,61**	0,07	0,19	0,14	0,15
70-Germs or getting a serious illness	**0,60**	0,33	0,04	0,18	0,06
58-Falling from high places	**0,60**	0,22	0,04	0,23	0,21
34-Fire-getting burned	**0,59**	0,11	0,19	0,09	0,06
26-A thief breaking into our house	**0,54**	0,09	0,24	0,17	0,27
10-Getting lost in a strange place	**0,52**	0,08	0,15	0,14	0,26
93-Mommy and daddy fighting	**0,50**	0,38	0,15	0,09	-0,02
18-Bears or wolves	**0,49**	-0,00	0,23	0,40	0,25
92-Shots being fired in the neigh-bourhood	**0,49**	0,30	0,14	0,35	0,08
32-Guns	**0,48**	0,12	0,32	0,22	0,22
83-The possibility of being in an accident	**0,48**	0,35	0,18	0,23	0,10
71-Closed spaces	**0,46**	0,44	0,16	0,19	0,23
9-Death or dead people	**0,44**	0,11	0,30	0,09	0,32
35-Getting a cut or injury	**0,44**	0,34	0,33	0,08	0,18
33-Being in a fight	**0,40**	0,09	0,36	0,19	0,16
52-Strange or mean looking dogs	0,38	0,22	0,32	0,27	0,24
Items with a high loading for Factor II					
75-Dark places	0,18	**0,70**	0,11	0,17	0,26
85-Being alone in the dark	0,22	**0,66**	0,17	0,25	0,27
60-Going to bed in the dark	-0,03	**0,62**	0,19	0,12	0,25
82-To walk alone at night	0,25	**0,61**	0,14	0,26	0,21
45-Dark rooms or closets	0,20	**0,59**	0,21	0,11	0,16
87-To be alone	0,11	**0,58**	0,23	0,17	0,25
81-Watching scary movies	0,11	**0,55**	0,32	0,18	0,12
88-Having bad dreams	0,25	**0,53**	0,26	0,29	0,16
62-Being alone	0,16	**0,51**	0,22	0,09	0,30
57-Nightmares	0,32	**0,51**	0,32	0,14	0,25
61-Getting car sick	0,19	**0,47**	0,35	0,12	0,10
66-Making mistakes	0,18	**0,47**	0,32	0,03	0,09
53-Cemetries	0,26	**0,44**	0,26	0,09	0,30
64-Getting punished by my father	0,40	**0,43**	0,09	0,01	0,10
77-Getting a bee sting	0,27	**0,43**	0,33	0,22	0,08
65-Having to stay after school	0,22	**0,40**	0,30	-0,01	0,06
68-Loud sirens	0,18	0,38	0,35	0,07	0,13
37-Thunderstorms	0,24	0,36	0,30	0,18	0,27

Table 8 continued

Item number and item	Factor				
	I	II	III	IV	V
43-Playing rough games during break	0,30	0,34	0,28	0,04	0,28
22-Going to the gym	0,12	0,31	0,30	0,06	0,21
Items with a high loading for Factor III					
4-Lizards	0,05	0,19	**0,58**	0,27	0,13
78-Worms or snails	-0,00	0,33	**0,54**	0,27	0,01
89-Chameleons	-0,00	0,36	**0,54**	0,35	0,06
25-Spiders	0,16	0,12	**0,54**	0,29	0,14
30-Bats or birds	-0,05	0,26	**0,53**	0,25	0,16
79-Rats or mice	0,07	0,26	**0,51**	0,39	0,12
47-Ants or beetles	-0,04	0,22	**0,50**	0,12	0,22
50-The sight of blood	0,21	0,34	**0,45**	0,03	0,12
31-My parents criticising me	0,35	0,14	**0,44**	-0,02	0,04
48-Being criticised by others	0,30	0,11	**0,42**	-0,05	0,21
14-Getting sick at school	0,20	0,26	0,38	-0,05	0,14
80-Taking a test	0,07	0,27	0,38	0,03	0,13
8-Having to go to the hospital	0,18	0,16	0,32	0,01	0,30
21-Getting an injection from the nurse or doctor	0,25	0,18	0,32	0,01	0,20
46-Having to put on a recital	0,11	0,20	0,26	0,08	0,26
Items with high loading for Factor IV					
96-Gorillas	0,32	0,17	0,14	**0,73**	0,12
90-Tigers	0,39	0,14	0,08	**0,69**	0,16
91-Lions	0,40	0,15	0,07	**0,69**	0,15
86-Crocodiles	0,44	0,15	0,12	**0,63**	0,16
95-Elephants	0,17	0,15	0,21	**0,62**	0,18
97-Sharks	0,46	0,20	0,08	**0,57**	0,13
94-Baboons	0,18	0,27	0,20	**0,56**	0,17
11-Snakes	0,30	0,06	0,30	**0,50**	0,18
Items with a high loading for Factor V					
23-High places like mountains	0,14	0,16	0,24	0,18	**0,57**
73-A foreign country	0,20	0,14	-0,01	0,19	**0,57**
74-Elevators	0,01	0,22	0,14	0,09	**0,56**
27-Flying in a plane	0,10	0,20	0,10	0,12	**0,55**
13-Roller coaster or carnival rides	0,08	0,18	0,17	0,10	**0,47**
49-Strange looking people	0,33	0,27	0,21	0,07	**0,41**
36-Being in a big crowd	0,12	0,28	0,15	0,15	0,39
56-Deep water or the ocean	0,27	0,35	0,13	0,22	0,38
7-Sharp objects	0,28	0,11	0,31	0,07	0,37
6-Ghosts or spooky things	0,23	0,32	0,32	0,17	0,32

Table 8 continued

Item number and item	Factor				
	I	II	III	IV	V
Eigenvalue	9,02	7,87	6,02	5,33	4,33
Percent of variance	12,19	10,63	8,14	7,23	5,85
Total variance accounted for:	44,01				

Only factor loadings > 0,40 are highlighted

Table 8 indicates that items were present that scored below 0,40 and loaded onto more than one factor. There are similarities of the above-mentioned five factors and those reported by Ollendick (1983). Although the factor order differs. The concern lies with the amount of items not loading convincingly onto one factor (see Table 8). This phenomena was reported by previous studies as well and despite this, the five-factor solution (Fisher et al. 2006; Mellon et al. 2004) has often been found to be the most meaningful.

The six-factor solution is reported in Table 9.

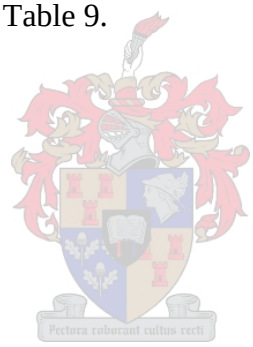


Table 9

Principal-Components Analysis using Varimax Rotation for the Six-Factor Solution

Item number and item	Factor					
	I	II	III	IV	V	VI
Item with a high loading for Factor 1						
76-Not being able to breathe	**0,70**	0,16	0,06	0,15	0,09	0,03
72-Earthquakes	**0,67**	0,21	0,07	0,20	0,15	0,08
84-Getting HIV	**0,66**	0,07	-0,03	0,21	0,05	-0,04
59-Getting a shock from electricity	**0,65**	0,16	0,17	0,21	0,07	0,09
41-Being hit by a car or truck	**0,65**	0,03	0,09	0,09	0,07	0,12
70-Germs or getting a serious illness	**0,63**	0,28	0,10	0,15	0,07	0,04
58-Falling from high places	**0,61**	0,19	0,08	0,21	0,20	0,12
20-Bombing attacks-being invaded	**0,55**	0,02	0,13	0,14	0,06	0,33
34-Fire-getting burned	**0,53**	0,14	0,11	0,09	-0,05	0,34
93-Mommy and daddy fighting	**0,52**	0,31	0,24	0,08	0,01	-0,03
92-Shots being fired in the neigh-bourhood	**0,51**	0,27	0,17	0,34	0,08	0,05
26-A thief breaking into our house	**0,50**	0,09	0,21	0,18	0,20	0,29
83-The possibility of being in an accident	**0,49**	0,31	0,22	0,22	0,10	0,06
71-Closed spaces	**0,47**	0,41	0,19	0,17	0,21	0,12
10-Getting lost in a strange place	**0,46**	0,14	0,05	0,14	0,13	0,40
18-Bears or wolves	**0,44**	0,04	0,13	0,41	0,15	0,35
32-Guns	**0,43**	0,14	0,25	0,24	0,12	0,34
64-Getting punished by my father	**0,43**	0,37	0,19	-0,01	0,12	-0,02
35-Getting a cut or injury	**0,40**	0,35	0,30	0,09	0,09	0,27
33-Being in a fight	0,35	0,08	0,33	0,22	0,11	0,24
52-Strange or mean looking dogs	0,34	0,24	0,26	0,28	0,17	0,27
Items with a high loading for Factor II						
75-Dark places	0,21	**0,71**	0,13	0,14	0,22	0,07
85-Being alone in the dark	0,24	**0,68**	0,17	0,23	0,22	0,10
60-Going to bed in the dark	-0,02	**0,65**	0,18	0,11	0,20	0,09
45-Dark rooms or closets	0,19	**0,65**	0,15	0,10	0,05	0,23
82-To walk alone at night	0,28	**0,61**	0,15	0,24	0,18	0,06
87-To be alone	0,14	**0,56**	0,28	0,17	0,24	0,03
88-Having bad dreams	0,25	**0,56**	0,21	0,28	0,08	0,18
81-Watching scary movies	0,18	**0,55**	0,31	0,18	0,06	0,10
57-Nightmares	0,30	**0,53**	0,29	0,14	0,16	0,25
62-Being alone	0,17	**0,50**	0,26	0,09	0,28	0,08
53-Cemetries	0,23	**0,48**	0,20	0,09	0,19	0,30
61-Getting car sick	0,18	**0,48**	0,34	0,13	0,05	0,14
77-Getting a bee sting	0,27	**0,41**	0,34	0,23	0,05	0,09
37-Thunderstorms	0,21	**0,40**	0,24	0,19	0,17	0,26
56-Deep water or the ocean	0,26	0,38	0,11	0,21	0,33	0,19
43-Playing rough games during break	0,27	0,35	0,27	0,04	0,22	0,23

Table 9 continued

Item number and item	Factor					
	I	II	III	IV	V	VI
Items with a high loading for Factor III						
80-Taking a test	0,09	0,16	**0,52**	0,06	0,22	-0,13
78-Worms or snails	-0,02	0,33	**0,51**	0,32	-0,03	0,11
30-Bats or birds	-0,08	0,26	**0,50**	0,30	0,11	0,14
48-Being criticised by others	0,28	0,04	**0,50**	-0,01	0,22	0,12
31-My parents criticising me	0,32	0,07	**0,50**	0,08	0,04	0,10
79-Rats or mice	0,06	0,25	**0,49**	0,43	0,10	0,12
47-Ants or beetles	-0,08	0,22	**0,47**	0,17	0,16	0,19
4-Lizards	-0,02	0,24	**0,46**	0,33	0,01	0,32
66-Making mistakes	0,21	0,37	**0,46**	0,04	0,16	-0,13
89-Chameleons	-0,04	0,40	**0,45**	0,40	-0,04	0,21
25-Spiders	0,10	0,15	**0,44**	0,34	0,04	0,30
50-The sight of blood	0,17	0,33	**0,43**	0,06	0,05	0,22
68-Loud sirens	0,19	0,33	**0,42**	0,09	0,14	0,03
21-Getting an injection from the nurse or doctor	0,24	0,12	0,39	0,03	0,22	0,07
14-Getting sick at school	0,16	0,25	0,39	-0,02	0,09	0,17
22-Going to the gym	0,13	0,26	0,36	0,08	0,23	0,02
65-Having to stay after school	0,22	0,35	0,36	-0,00	0,06	0,02
46-Having to put on a recital	0,11	0,15	0,34	0,10	0,29	0,01
8-Having to go to the hospital	0,15	0,15	0,33	0,04	0,26	0,19
Items with high loading for Factor IV						
96-Gorillas	0,34	0,17	0,11	**0,72**	0,13	0,03
90-Tigers	0,41	0,14	0,05	**0,68**	0,16	0,07
91-Lions	0,42	0,16	0,04	**0,68**	0,15	0,07
95-Elephants	0,18	0,16	0,17	**0,63**	0,18	0,07
86-Crocodiles	0,43	0,19	0,03	**0,62**	0,10	0,22
94-Baboons	0,20	0,28	0,18	**0,57**	0,16	0,06
97-Sharks	0,49	0,17	0,10	**0,55**	0,16	0,08
11-Snakes	0,26	0,09	0,20	**0,52**	0,11	0,27
Items with high loading for Factor V						
73-A foreign country	0,24	0,08	0,11	0,18	**0,65**	-0,03
74-Elevators	0,02	0,18	0,22	0,10	**0,60**	0,04
27-Flying in a plane	0,10	0,19	0,14	0,12	**0,55**	0,12
23-High places like mountains	0,08	0,23	0,15	0,20	**0,46**	0,37
13-Roller coaster or carnival rides	0,04	0,23	0,12	0,11	0,39	0,26
49-Strange looking people	0,31	0,26	0,24	0,08	0,38	0,19
36-Being in a big crowd	0,12	0,29	0,15	0,15	0,36	0,15
Items with a high loading for Factor VI						
9-Death or dead people	0,34	0,20	0,14	0,10	0,13	**0,54**
7-Sharp objects	0,19	0,21	0,15	0,09	0,18	**0,52**
6-Ghosts or spooky things	0,15	0,44	0,13	0,18	0,12	**0,52**

Table 9 continued

Item number and item	Factor					
	I	II	III	IV	V	VI
Eigenvalue	8,63	7,79	5,66	5,50	3,30	3,18
Percent of variance	11,66	10,53	7,65	7,37	4,44	4,30
Total variance accounted for:	45,96					

Only factor loadings > 0,40 are highlighted

Table 9 indicates that some items scored below 0,40 and these were then allocated to the factor where the loading was the highest. There were also items that did not convincingly load onto one factor. Factor seven consists of only three items, which does not seem to be meaningful. This poses the question of it being a trivial factor.

The seven-factor solution is presented in Table 10.

Table 10

Principal-Components Analysis using Varimax Rotation for the Seven-Factor Solution

Item number and item	Factor						
	I	II	III	IV	V	VI	VII
Item with a high loading for Factor 1							
76-Not being able to breathe	**0,71**	0,16	0,12	0,07	0,09	0,01	0,07
72-Earthquakes	**0,68**	0,19	0,18	0,11	0,04	0,09	0,14
84-Getting HIV	**0,67**	0,05	0,18	0,03	-0,03	-0,03	0,05
59-Getting a shock from electricity	**0,66**	0,15	0,19	0,15	0,14	0,08	0,06
41-Being hit by a car or truck	**0,65**	0,02	0,06	0,07	0,12	0,10	0,06
58-Falling from high places	**0,62**	0,21	0,17	0,03	0,14	0,08	0,18
70-Germs or getting a serious illness	**0,62**	0,22	0,14	0,25	-0,06	0,10	0,08
20-Bombing attacks-being invaded	**0,55**	0,03	0,13	0,05	0,19	0,31	0,04
34-Fire-getting burned	**0,55**	0,19	0,06	-0,04	0,27	0,26	-0,09
92-Shots being fired in the neighbourhood	**0,51**	0,26	0,33	0,16	0,11	0,05	0,07
26-A thief breaking into our house	**0,51**	0,14	0,16	0,03	0,33	0,21	0,17
93-Mommy and daddy fighting	**0,50**	0,24	0,08	0,35	0,03	0,03	0,02
83-The possibility of being in an accident	**0,50**	0,34	0,20	0,13	0,24	0,01	0,07
10-Getting lost in a strange place	**0,46**	0,12	0,13	0,06	0,05	0,41	0,13
71-Closed spaces	**0,46**	0,36	0,17	0,30	0,01	0,17	0,22
18-Bears or wolves	**0,45**	0,02	0,40	0,09	0,11	0,36	0,16
32-Guns	**0,42**	0,11	0,25	0,22	0,16	0,36	0,12
35-Getting a cut or injury	0,38	0,29	0,10	0,35	0,12	0,32	0,10
33-Being in a fight	0,35	0,10	0,22	0,17	0,33	0,20	0,09
52-Strange or mean looking dogs	0,35	0,26	0,28	0,13	0,28	0,23	0,15
Items with a high loading for Factor II							
85-Being alone in the dark	0,26	**0,69**	0,22	0,15	0,12	0,08	0,19
60-Going to bed in the dark	-0,00	**0,68**	0,11	0,12	0,15	0,05	0,16
75-Dark places	0,21	**0,68**	0,14	0,23	-0,03	0,11	0,21
82-To walk alone at night	0,30	**0,64**	0,22	0,11	0,14	0,02	0,15
45-Dark rooms or closets	0,19	**0,63**	0,10	0,19	0,05	0,24	0,03
87-To be alone	0,15	**0,60**	0,16	0,18	0,24	-0,02	0,20
88-Having bad dreams	0,26	**0,54**	0,28	0,22	0,09	0,19	0,07
81-Watching scary movies	0,11	**0,54**	0,19	0,29	0,15	0,11	0,05
62-Being alone	0,17	**0,53**	0,08	0,17	0,24	0,04	0,25
53-Cemetries	0,24	**0,53**	0,08	0,07	0,25	0,25	0,15
57-Nightmares	0,30	**0,53**	0,15	0,25	0,20	0,24	0,14
61-Getting car sick	0,16	**0,43**	0,15	0,38	0,12	0,18	0,05
77-Getting a bee sting	0,26	0,38	0,24	0,32	0,17	0,11	0,04
37-Thunderstorms	0,21	0,38	0,20	0,22	0,14	0,27	0,17
56-Deep water or the ocean	0,27	0,37	0,20	0,11	0,06	0,20	0,32
Items with a high loading for Factor III							
96-Gorillas	0,38	0,18	**0,70**	0,05	0,09	0,01	0,13
90-Tigers	0,44	0,13	**0,67**	0,06	-0,01	0,08	0,17

Table 10 continued

Item number and item	Factor						
	I	II	III	IV	V	VI	VII
91-Lions	0,45	0,14	**0,66**	0,07	-0,03	0,09	0,17
95-Elephants	0,20	0,16	**0,63**	0,10	0,10	0,06	0,18
86-Crocodiles	0,46	0,17	**0,60**	0,06	-0,04	0,24	0,11
94-Baboons	0,22	0,25	**0,57**	0,18	0,04	0,08	0,17
97-Sharks	0,51	0,18	**0,53**	0,05	0,11	-0,02	0,15
11-Snakes	0,29	0,15	**0,50**	-0,02	0,30	0,19	0,08
79-Rats or mice	0,05	0,26	**0,46**	0,31	0,35	0,10	0,09
89-Chameleons	-0,05	0,36	**0,44**	0,39	0,20	0,24	-0,03
4-Lizards	-0,03	0,24	0,36	0,29	0,35	0,30	0,00
Items with high loading for Factor IV							
66-Making mistakes	0,17	0,27	0,08	**0,61**	0,05	-0,02	0,19
80-Taking a test	0,05	0,11	0,10	**0,51**	0,23	-0,08	0,23
78-Worms or snails	-0,05	0,27	0,36	**0,49**	0,19	0,17	-0,01
14-Getting sick at school	0,12	0,15	0,02	**0,49**	0,07	0,28	0,12
65-Having to stay after school	0,19	0,27	0,03	**0,47**	0,06	0,10	0,08
64-Getting punished by my father	0,40	0,27	-0,01	**0,42**	-0,12	0,10	0,15
31-My parents criticising me	0,29	0,04	0,04	**0,40**	0,33	0,11	0,04
68-Loud sirens	0,16	0,30	0,11	0,39	0,22	0,05	0,14
43-Playing rough games during break	0,25	0,30	0,06	0,31	0,10	0,28	0,22
46-Having to put on a recital	0,09	0,13	0,12	0,30	0,18	0,03	0,29
Items with high loading for Factor V							
21-Getting an injection from the nurse or doctor	0,25	0,24	0,01	0,03	**0,58**	-0,08	0,15
25-Spiders	0,10	0,21	0,35	0,14	**0,49**	0,21	0,01
48-Being criticised by others	0,25	0,07	0,01	0,27	**0,47**	0,06	0,19
50-The sight of blood	0,16	0,36	0,08	0,26	0,37	0,17	0,02
8-Having to go to the hospital	0,14	0,19	0,04	0,13	0,37	0,13	0,23
22-Going to the gym	0,12	0,30	0,08	0,19	0,36	-0,04	0,19
47-Ants or beetles	-0,10	0,23	0,20	0,30	0,35	0,17	0,15
30-Bats or birds	-0,09	0,27	0,34	0,34	0,34	0,13	0,10
Items with a high loading for Factor VI							
7-Sharp objects	0,18	0,15	0,11	0,21	0,01	**0,60**	0,21
9-Death or dead people	0,34	0,19	0,10	0,09	0,14	**0,55**	0,13
6-Ghosts or spooky things	0,16	0,43	0,19	0,09	0,11	**0,52**	0,11
Items with a high loading for Factor VII							
73-A foreign country	0,23	0,04	0,18	0,18	-0,02	0,03	**0,67**
74-Elevators	0,01	0,17	0,11	0,20	0,11	0,07	**0,60**
27-Flying in a plane	0,11	0,22	0,11	0,06	0,16	0,10	**0,54**
23-High places like mountains	0,10	0,28	0,19	-0,02	0,24	0,33	**0,44**
13-Roller coaster or carnival rides	0,05	0,22	0,11	0,10	0,08	0,28	0,39
49-Strange looking people	0,31	0,29	0,06	0,13	0,26	0,16	0,36
36-Being in a big crowd	0,12	0,31	0,14	0,09	0,15	0,13	0,35

Table 10 continued

Item number and item	Factor						
	I	II	III	IV	V	VI	VII
Eigenvalue	8,71	7,50	5,40	4,28	3,33	3,13	3,08
Percent of variance	11,77	10,14	7,29	5,78	4,50	4,23	4,17
Total Variance accounted for:	47,86						

Only factor loadings > 0,40 are highlighted

Table 10 indicates that items score below 0,40 and that there are also items which do not convincingly load onto one factor. Factor V seems to have various underlying theoretical constructs such as medical, small animals as well as failure and criticism. Furthermore, Factor IV is identical to Factor IV of the six factor solution and this factor seems to have more than one underlying concept. After careful consideration of the meaningfulness of the factor solutions and of the fact that the five factor solution has often been found as the best solution (Burnham, 2005; Burnham & Gullone, 1997; Fisher et al., 2006; Gullone & King, 1992; Ollendick, 1983) which would also allow for comparisons, in the present study, the five-factor solution seems to be the best conceptual fit since the factors seem to be more interpretable (see Table 8). Factor I was labelled Fear of Death and Danger. Factor II was labelled Fear of the Unknown. Factor III was labelled Worries. Factor IV was labelled Animal Fears and Factor V was labelled Situational Fears. This will be discussed in detail during the discussion of the results.

Figure 6.4 represents the scree plot results of factor analyses

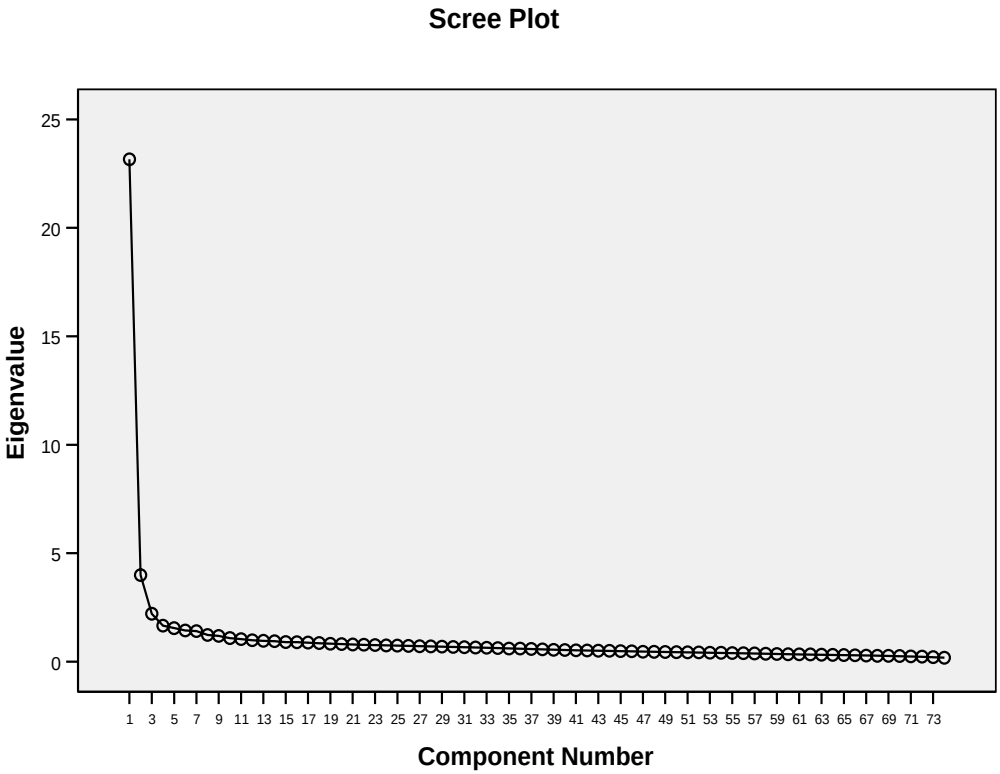


Figure 6.4 Scree plot of results of factor analysis

Figure 6.4 indicates that approximately three to seven factors could be extracted.

A summary of the variance accounted for by the 3,5,6, 7 and 11-factor solutions is presented in Table 11.

Table 11
Summary of Percentage of Variance accounted for by the various Factor Solutions

Factor Solution	Total Variance accounted for
3-factor solution	39,68%
5-factor solution	44,01%
6-factor solution	45,96%
7-factor solution	47,86%
11-factor solution	54,00%

Table 11 indicates that the more factors which are present, the more percentage of the

variance is accounted for.

6.4 Content of fear

Firstly the content of fear will be reported regarding the overall sample and then each culture namely; black, coloured and white. The same procedure is applicable with respect to gender.

6.4.1 Fear rank order for all, black, white and coloured South African Children

In Table 12 the ten most common fears derived from the results of the FSSC-SA for all the South African children is presented. The ten most common fears were determined by the number of subjects rating a particular fear 'a lot'.

Table 12

Fear Rank Order for all the South African Children (N=646) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Getting HIV	507	78,48
(2) Not being able to breathe	451	69,81
(3) Sharks	443	68,58
(4) Being hit by a car or truck	442	68,42
(5) Lions	436	67,49
(6) Falling from high places	424	65,63
(7) Bombing attacks-being invaded	423	65,48
(8) Bears or wolves	405	62,69
Getting a shock from electricity	405	62,69
(10)Tigers	401	62,07

The percentages of endorsement ranged from 78,48 % to 62,07% for the overall sample (Table 12).

Table 13 presents the ten most common fears for the black South African fears

Table 13

Fear Rank Order for the Black South African Children (n=153) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Ghosts or spooky things	124	81,05
(2) Death or dead people	122	79,74
Bombing attacks-being invaded	122	79,74
(4) Getting HIV	121	79,08
(5) Lions	115	75,16
(6) Elevators	114	74,50
(7) Sharks	111	72,55
(8) Crocodiles	110	71,90
(9) Shots being fired in the neighbourhood	109	71,24
(10)Guns	108	70,59
Fire-Getting burned		
Getting a shock from electricity		

The black South African children endorsed specific fears with a higher percentage than was evident in all the South African children (see Table 12 & 13). The range of endorsement of fears for the black South African children was from 81,05% to 70,59% (see Table 13).

Table 14 indicates the ten most common fears for the coloured South African children.

Table 14

Fear Rank Order for the Coloured South African Children (n=288) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Lions	217	75,35
(2) Getting HIV	228	79,17
(3) Falling from high places	203	70,49
(4) Bears or wolves	200	69,44
(5) Not being able to breathe	198	68,75
(6) Sharks	196	68,06
(7) Being hit by a car or truck	195	67,71
(8) Tigers	191	66,32
Crocodiles	191	66,32
(10)Getting a shock from electricity	190	65,97

The most feared item for the coloured South African children was the fear of lions. Furthermore, the coloured South African children displayed a range of endorsement of 73,35 - 65,97% (see Table 14).

The fear rank order for the ten most common fears expressed by the white South African children are presented in Table 15.

Table 15

Fear Rank Order for the White South African Children (n=205) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Getting HIV	158	77,03
(2) Being hit by a car or truck	141	68,78
(3) Not being able to breathe	139	67,80
(4) Sharks	136	66,34
(5) Fire-getting burned	123	60,00
(6) Bombing attacks-being invaded	120	58,54
Falling from high places	120	58,54
(8) A thief breaking into our house	115	56,10
(9) Getting a shock from electricity	107	52,20
(10)Earthquakes	105	51,22

The range of endorsement for the white South African children was broader than for the overall sample and ranged from 77,03% to 51,22% (see Table 12 & 15).

In order to determine the similarities with respect to content of fears for all the cultures, a comparison of the ten most common fears was done.

Upon comparison of Table 12 (overall), Table 13 (black South African children), Table 14 (coloured South African children) and Table 14 (white South African children), two matches were found. These were ‘getting HIV’ and ‘getting a shock from electricity’.

Further comparison among the three cultural groups yielded the following matches: The black and white South African children had five matches (bombing attacks-being invaded, getting HIV, sharks, fire-getting burned and getting a shock from electricity). The black and coloured South African children also yielded five matches (getting HIV, lions, sharks, crocodiles and getting a shock from electricity). Six matches were apparent among the coloured and white South African children (getting HIV, being hit by car or truck, not being able to breathe, sharks, falling from high places and getting a shock from electricity) (see Table 13-15).

The percentage of endorsement with respect to the whole sample for the first item (getting HIV) was 78,48% and for the tenth item (tigers) was 62,97% (see Table 12).The black South

African endorsed the first item (ghosts or spooky things) with 81,05% and the tenth item with 70,59% (getting a shock from electricity) (see Table 13). The percentage of endorsement for the coloured South African children for the first item (lions) was 75,35% and the last item (getting a shock from electricity) of the ten most common fears was 65,97% (see Table 14). The white South African children endorsed the first item (getting HIV) with 74,29% and the tenth item (tigers) with 50,47% (see Table 15).

From the above-mentioned, it is apparent that the endorsement was much higher for the black South African children, followed by the white South African children and lastly the coloured South African children. The range of fear endorsement was the longest for the white South African children, followed by the black South African children and lastly the coloured South African children (see Table 13-15).

6.4.2 Gender differences with regard to content of fear

6.4.2.1 Results regarding the whole sample

In Table 16 the ten most common fears based on the number of the South African boys endorsing a particular fear, is shown.

Table 16

Fear Rank Order for all South African Children Boys (n=319) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Getting HIV	237	74,29
(2) Not being able to breathe	208	65,20
(3) Being hit by a car or truck	198	62,07
(4) Lions	187	58,62
(5) Sharks	183	57,37
Bombing attacks-being invaded		
(7) Falling from high places	172	53,92
(8) Fire-getting burned	171	53,61
(9) Bears or wolves	165	51,73
(10)Tigers	161	50,47

Overall the boys feared ‘getting HIV’ most and endorsed this fear with 74,29 % (see Table 16).

The ten most common fears for all the South African girls is provided in Table 17.

Table 17

Fear Rank Order for all South African Children Girls (n=327) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Getting HIV	270	82,26
(2) Sharks	260	79,51
(3) Falling from high places	252	77,06
(4) Lions	249	76,15
(5) Getting a shock from electricity	247	75,54
(6) Being hit by a car or truck	244	74,62
(7) Not being able to breathe	243	74,31
(8) Tigers	240	73,39
Bears or wolves		
Bombing attacks-being invaded		

The girls also feared ‘getting HIV’ the most, endorsing this fear with 82,26%. The tenth item was endorsed 73,39% (see Table15). The range of endorsement is far shorter for the girls (8,87%) than the boys (23,82%) (see Tables 16 & 17).

The results of the FSSC-SA for the ten most common fears for the boys and girls indicate that nine matches were apparent. The unmatched item for the boys was: fire-getting burned. The girl’s unmatched item was: getting a shock from electricity (see Tables 16 & 17).

6.4.2.2 Results of the black South African Children

The ten most fears expressed by the black South African boys are presented in Table 18.

Table 18

Fear Rank Order for the Black South African Children Boys (n=76) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Getting HIV	61	80,26
(2) Ghosts or spooky things	60	78,95
(3) Not being able to breathe	58	76,32
(4) Death or dead people	57	75,00
(5) Lions	56	73,68
(6) Bombing attacks-being invaded	54	71,05
(7) Sharks	53	69,74
(8) Fire-getting burned	52	68,42
Being hit by a car or truck		
Shots being fired in our neighbourhood		

The black South African boys endorsed the first item with 80,26% and the last with 68,42 % (see Table 18).

The ten most feared items displayed by the black South African girls are provided in Table 19.

Table 19

Fear Rank Order for the Black South African Children Girls (n=77) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Bombing attacks-being invaded	68	88,31
(2) Death or dead people	65	84,42
(3) Ghosts or spooky things	64	83,12
Getting a shock from electricity		
(5) Getting HIV	60	77,92
(6) Falling from high places	59	76,62
Crocodiles		
Lions		
Gorillas		
(10)Bears or wolves	58	75,32
Guns		
Cemeteries		
The possibility of being in an accident		
Tigers		
Sharks		

The range of endorsement of the ten most common fears for the black South African girls (12,99%) was slightly longer than for the boys (11,84%). Additionally, more black South

African girls endorsed the most feared item (88,31%) than in comparison to the black South African boys (80,26%) (see Tables 18 & 19).

Upon comparison of the ten most common fears for the black South African boys and girls, six matches were present. The unmatched items for the boys were: not being able to breathe, fire-getting burned, being hit by a car or truck and shots being fired in our neighbourhood. The unmatched items for the girls included getting a shock from electricity, falling from high places, crocodiles, gorillas, bears or wolves, guns, cemeteries, the possibility of being in an accident and tigers (see Tables 18 & 19).

6.4.2.3 Results of the coloured South African children

The ten most common fears of the coloured South African boys are shown in Table 20.

Table 20

Fear Rank Order for the Coloured South African Children Boys (n=138) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Getting HIV	100	72,46
(2) Being hit by a car or truck	84	60,87
(3) Falling from high places	82	59,42
(4) Bombing attacks-being invaded	81	58,70
(5) Getting a shock from electricity	77	55,80
(6) Bears or wolves	76	55,07
(7) Crocodiles	72	52,17
(8) Getting lost in a strange place	70	50,72
(9) Earthquakes	69	50,00
(10)Fire-getting burned	67	48,55

The coloured South African boys endorsed their most feared item with 72,46% and displayed a range of the ten most common fears of 23,91 (see Table 20).

The most feared items displayed by the South African girls are presented in Table 21.

Table 21

Fear Rank Order for the Coloured South African Girls (n=150) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Lions	131	87,33
(2) Getting HIV	128	85,33
(3) Bears or wolves	124	82,66
(4) Sharks	122	81,33
(5) Falling from high places	121	80,67
(6) Snakes	120	80,00
Tigers		
(8) Crocodiles	119	79,33
(9) Getting lost in a strange place	113	75,33
Getting a shock from electricity		

The coloured South African girls feared lions (87,33%) most and displayed a range of their ten most common fears of 12,00 indicating that their range was shorter than for the coloured South African boys (see Tables 20 & 21).

The results of the ten most common fears for the boys and girls shows that six of the ten most common fears are identical. The ones that are not identical for the boys are: being hit by a car or truck, bombing attacks-being invaded, earthquakes and fire-getting burned. The girls' unmatched items are: lions, sharks, snakes and tigers (see Tables 20 & 21).The girls endorsed their fears with a higher percentage than the boys with 87,33% and 72,46% respectively for the most feared item. The lowest percentage of the last fear of the ten most common fears was 48,55% for the boys and 75,33 for the boys (see Tables 20 & 21).

6.4.2.3 Results of the white South African children

In Table 22 the most feared objects expressed by the white South African boys are shown.

Table 22

Fear Rank Order for the White South African Boys (n=105) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Getting HIV	76	72,38
(2) Not being able to breathe	63	60,00
(3) Being hit by a car or truck	62	59,05
(4) Sharks	56	53,33
(5) Fire-getting burned	52	49,52
(6) A thief breaking into our house	49	46,67
(7) Bombing attacks-being invaded	48	45,71
Falling from high places		
(9) Lions	45	42,86
(10)Tigers	41	39,05

The white South African boys fear 'getting HIV' the most. They endorsed this fear with 72,38%. The range of endorsement of the ten most common fears for the white South African boys is 33,33% (see Table 22).

The ten most common fears of the white South African girls are presented in Table 23.

Table 23

Fear Rank Order for the White South African Girls (n=100) Based on the Results of the South African Fear Survey Schedule for Children (FSSC-SA)

Items	No. of subjects	Percentage of sample
(1) Getting HIV	82	82,00
(2) Sharks	80	80,00
(3) Being hit by a car or truck	79	79,00
(4) Not being able to breathe	76	76,00
(5) Falling from high places	72	72,00
Bombing attacks-being invaded		
(7) Fire-getting burned	71	71,00
(8) Getting a shock from electricity	70	70,00
(9) Earthquakes	68	68,00
(10)A thief breaking into our house	66	66,00

The white South African girls also fear getting HIV the most with 82% of the participants endorsing this fear. The range of endorsement of the ten most common fears for the girls is 16% (see Table 23).

Eight matches were found when comparing the results of the white South African boys and

girls. These matches were getting HIV, not being able to breathe, being hit by a car or truck, sharks, fire-getting burned, a thief breaking into our house, bombing attacks being invaded and falling from high places. The remaining items for the boys were: tigers and lions. For the girls, they were: getting a shock from electricity and earthquakes (see Tables 22 & 23).

Girls (82,00%) had a higher percentage of endorsement of the most common fear, getting HIV than boys (72,38%). The tenth item was endorsed with 66,00% for the girls and 39,05% for the boys. The range of fears on the other hand, was longer for the boys (33,33%) than for the girls (16,00%) (see Tables 22 & 23).

6.5 Number of fear

Firstly, the number of fears will be presented with respect to the cultures, followed by the presentation of gender differences.

6.5.1 Number of fear with respect to the overall sample and cultures

The means and standard deviations are reported in Table 24. The mean represents an average out of a possible 74 items.

Table 24

The Means and Standard Deviations for the Number of Fears Based on the South African Fear Survey Schedule for Children (FSSC-SA)

Culture		Mean	SD
Black	Boy	33,93	16,96
	Girl	40,91	16,53
	Total	37,44	17,05
White	Boy	14,48	11,16
	Girl	25,81	14,08
	Total	20,00	13,76
Coloured	Boy	22,01	14,97
	Girl	36,64	14,99
	Total	29,63	16,65
Total (Black, White & Coloured)	Boy	22,37	16,06
	Girl	34,33,	16,17
	Total	28,43	17,18

The number of fears reported was the highest for the black South African children (M=37,44), followed by the coloured South African children (M=29,63). The lowest number of fears was revealed by the white South African children (M=20,00) (see Table 24).

The number of fears were explored by means of a 3 (culture: black South African culture, white South African culture and coloured South African culture) X 2(gender: boys and girls) ANOVA. A summary of the factorial ANOVA is presented in Table 25.

Table 25

Summary of the Factorial ANOVA for the Number of Fears on the South African Fear Survey Schedule for Children (FSSC-SA)

Source	df	Sum of squares	Mean squares	F	p
Between groups					
Gender (G)	1	18 212,60	18 212,60	83,79	0,00
Culture (C)	2	26 662,03	13 331,02	61,33	0,00
C X G	2	1 478,24	739,12	3,40	0,03
Within Groups	640	139 106,17	217,35		

The F-value for culture was found to be significant ($F[2,640] = 61,33$, $p < 0,05$) (see Table 25). There was a significant difference between the number of fears of the black South African children (M=37,44), the coloured South African children (M=29,63) and white South African children (M=20,00). A significant interaction effect was apparent (see Tables 24 & 25).

To determine where the difference between the cultural groups was, Bonferroni Confidence Intervals, controlling for family wise error rate, were computed. These findings are presented in Table 26.

Table 26

Pairwise comparison of the Number of Fears for the Cultural Groups

Culture(I)	Culture(J)	Mean difference (I-J)	Bonferroni Intervals		p
Black	White	17,28	13,66	21,22	0,00
	Coloured	7,82	4,28	11,36	0,00
White	Coloured	-9,18	-12,42	-5,95	0,00

The Bonferonni Confidence Intervals indicate that the number of fears for the black South African children (M=37,44) was significantly higher than the number of fears of the white

South African children (M=20,00). There was also a significant difference between black South African children (M= 37,44) and coloured South African children (M=29,62). Lastly there was also a significant difference between the white (M=20,00) and coloured (M=29,62) South African children (see Tables 24 & 26).

6.5.2 Number of fear with regard to gender

Gender related differences are discussed in this section including the significant differences in Table 25. Bonferonni Confidence Intervals were computed with respect to gender and the results are displayed in Table 27.

Table 27

Pairwise comparison for Gender Differences with Regard to Number of Fears

Gender(I)	Gender(J)	Mean difference (I-J)	Bonferonni Intervals		p
Male	Female	-10,98	-13,34	-8,63	0,00

As can be seen in Table 27 the F-value was significant (F[1,640] = 83,79, p < 0,05). There was a significant difference between the means of the boys (M=22,37) and the girls (M=34,33) (see Tables 24,25, & 27). The girls (M=34,33) experienced a higher number of fears than the boys (M=24,98). This trend was observed among all the individual cultures.

6.6 Level of fear

Firstly, the level of fear will be presented with respect to the cultures, followed by the presentation of gender differences.

6.6.1 Level of fear with respect to overall sample and culture

The level and pattern of fear results were obtained in order to gather a body of knowledge regarding South African children's fears, enabling cross-national and cross-cultural comparisons to previous studies, such as the research by Shore and Rapport (1998) and Mellon et al. (2004).

The means and standard deviations regarding the level of fear, are reported in Table 28. The mean represents the average expressed by the participant out of a possible score of 222.

Table 28

The Means and Standard Deviations for the Level of Fear Based on the South African Fear Survey Schedule for Children (FSSC-SA)

Culture		Mean	SD
Black	Boy	158,86	27,39
	Girl	170,70	28,09
	Total	164,82	28,29
White	Boy	127,14	24,69
	Girl	152,11	24,30
	Total	139,32	27,46
Coloured	Boy	137,22	32,29
	Girl	165,93	26,87
	Total	152,17	32,85
Total (Black, White & Coloured)	Boy	139,06	31,11
	Girl	162,82	27,34
	Total	151,09	31,57

The level of fear experienced was the highest for the black South African children (M=164,82), followed by the coloured South African children (M=152,17) while the white South African children (M=139,32) experienced the lowest level of fear (see Table 28).

An factorial ANOVA was conducted to determine whether any significant differences were apparent regarding the level of fear, which means the sum of the responses to the 74 items on the adapted FSSC-R. As such, a 3 (culture: black South African culture, white South African culture and coloured South African culture) X 2(gender: boys and girls) ANOVA was conducted on the total fear score and a summary of the findings is provided in Table 29.

Table 29

Summary of the Factorial ANOVA for the Level of Fear on the South African Fear Survey Schedule for Children (FSSC-SA)

Source	df	Sum of squares	Mean squares	F	p
Between groups					
Gender (G)	1	72 070,14	72 070,14	94,42	0,00
Culture (C)	2	55 637,14	27 818,63	36,44	0,00
C X G	2	7 260,27	3 630,13	4,76	0,01
Within Groups	640	493 623,97	763,33		

The F-value for culture was found to be significant (F[2,640] = 36,44, p < 0,05) (see Table 28). There was a significant difference between the level of fear of the black South African children (M=164,82), the coloured South African children (M=152,17), white South African children(M=139,32). A significant interaction effect was apparent (see Table 29).

In order to determine where the difference between the cultural groups was, Bonferroni Confidence Intervals, controlling for family wise error rate were computed. The results are presented in Table 30.

Table 30

Pairwise comparison of the Level of Fear for the Cultural Groups

Culture(I)	Culture(J)	Mean difference (I-J)	Bonferroni Intervals		p
Black	White	25,15	18,07	32,24	0,00
	Coloured	13,20	6,57	19,84	0,00
White	Coloured	-11,95	-18,01	-5,89	0,00

The Bonferonni Confidence Intervals indicate that the level of fear for the black South African children (M=164,82) was significantly higher than the number of fears of the white South African children (M=139,32). There was a significant difference between black South African children (M= 164,98) and coloured South African children (M=152,17). Lastly, there was also a significant difference between the white (M=139,32) and coloured (M=152,17) South African children (see Tables 27-30).

6.6.2 Level of fear with regard to gender

Gender related differences are discussed in this section, including the significant differences in Table 29. Bonferroni Confidence Intervals were computed with respect to gender and the level of fear. The results are displayed in Table 31.

Table 31

Pairwise comparison for Gender Differences with Regard to Level of Fears

Gender(I)	Gender(J)	Mean difference (I-J)	Bonferroni Intervals		p
Male	Female	-21,84	-26,28	-17,43	0,00

As can be seen in Table 31 the F-value was significant ($F[1,640] = 94,42$, $p < 0,05$). There was a significant difference between the means of the boys (M=139,06) and the girls (M=162,83) (see Tables 27,29, & 31). The girls (M=162,83) experienced a higher level of fear than the boys (M=139,06). This trend was observed among all the individual cultures (see Table 28).

6.7 Pattern of fear

Firstly the pattern of fear is presented with respect to the cultures, followed by the presentation of gender differences.

6.7.1 Pattern of fear with respect to the overall sample and cultures

As previously reported a 5-factor solution was found to be most appropriate. The pattern of fear entails the level of fear on each of the 5 factors respectively. The mean and standard deviations for the pattern of fear are displayed in Table 32.

Table 32

The Mean and Standard Deviations for the Pattern of Fear on the South African Fear Survey Schedule for Children (FSSC-SA)

Dependent variable	Culture	Gender	Mean	SD
Factor 1	Black	Boy	51,78	8,71
		Girl	54,32	9,49
		Total	53,06	9,17
	White	Boy	44,24	8,97
		Girl	51,98	8,01
		Total	48,01	9,34
	Coloured	Boy	46,17	11,41
		Girl	53,27	9,12
		Total	49,87	10,86
	Total (Black,	Boy	46,87	10,42
	White &	Girl	53,13	8,90
	Coloured)	Total	50,04	10,17
Factor 2	Black	Boy	42,42	9,02
		Girl	46,08	9,47
		Total	44,26	9,40
	White	Boy	30,56	8,01
		Girl	37,88	9,08
		Total	34,13	9,28
	Coloured	Boy	33,88	9,51
		Girl	42,21	8,74
		Total	38,22	10,01
	Total (Black,	Boy	34,82	9,97
	White &	Girl	41,80	9,49
	Coloured)	Total	38,35	10,32
Factor 3	Black	Boy	27,21	5,93
		Girl	30,68	6,09
		Total	28,95	6,24
	White	Boy	21,77	4,55
		Girl	27,13	5,62
		Total	24,39	5,75
	Coloured	Boy	23,10	5,92
		Girl	30,15	6,23
		Total	26,77	7,04
	Total (Black,	Boy	23,64	5,87
	White &	Girl	29,35	6,20
	Coloured)	Total	26,53	6,68
Factor 4	Black	Boy	19,08	4,12
		Girl	20,70	3,90
		Total	19,89	4,08
	White	Boy	16,24	4,62
		Girl	19,17	4,08
		Total	17,67	4,59
	Coloured	Boy	17,64	5,23
		Girl	20,83	4,08

Table 32 continued

Dependent variable	Culture	Gender	Mean	SD
		Total	19,30	4,93
	Total (Black,	Boy	17,52	4,89
	White &	Girl	20,29	4,09
	Coloured)	Total	18,93	4,71
Factor 5	Black	Boy	20,49	4,57
		Girl	21,13	3,57
		Total	20,81	2,00
	White	Boy	15,90	4,15
		Girl	17,86	3,60
		Total	16,85	4,07
	Coloured	Boy	18,08	5,19
		Girl	21,49	4,35
		Total	19,85	5,05
	Total (Black,	Boy	17,93	5,00
	White &	Girl	20,39	4,26
	Coloured)	Total	19,13	4,79

Factor 1 (Fear of danger and death), Factor 2(Fear of the unknown), Factor 3 (Worries), Factor 4 (Animal fears) and Factor 5 (Situational fears).

The level of fear rank order for the fear subscales from the highest to lowest for all cultures was: Factor 1(M=50,04), Factor 2 (M=31,11), Factor 3 (M= 26,53), Factor 5 (M= 19,13) and Factor 4 (M=18,93) (see Table 32). The same finding is applicable with respect to overall mean level of fear for each factor (see Table 32).

A 3 (Culture: black South African children, white South African children, coloured South African children) X 2 (gender: boy, girl) MANOVA was conducted on the sum of the responses to the items contained on each of the seven-factor scales. A summary of the factorial MANOVA is shown in Table 33.

Table 33

Summary of the Factorial MANOVA for the Five Factors on the South African Fear Survey Schedule for Children (FSSC-SA)

Source	df	Wilk's Lambda	F	p
Culture	10	0,78	16,51	0,00
Gender	5	0,82	27,69	0,00
Interaction effect	10	0,97	1,94	0,04
Error	1 272			

The results of the five factors measuring for culture indicated that the multivariate Wilk's Lambda was significant ($F[10,1272] = 16,51$, $p < 0,05$) (see Table 33).

Pairwise comparisons were done since the multivariate statistic (Wilk's Lambda) was significant in order to identify statistically significant differences for the five factor scales. Table 34 represents the pairwise comparisons.

Table 34

Tests of Between-Culture Effects for the Five Factors

Source	df	Sum of squares	Mean of squares	F	p
Factor 1	2	2 178,23	1 089,11	12,13	0,00
Error	640	57 480,71	89,81		
Factor 2	2	8 842,99	4 421,50	54,91	0,00
Error	640	51 530,55	80,52		
Factor 3	2	1 777,70	888,85	26,58	0,00
Error	640	15 150,77	33,45		
Factor 4	2	474,74	237,37	12,13	0,00
Error	640	19 318,06	19,57		
Factor 5	2	1 592,58	796,29	42,11	0,00
Error	640	12 103,17	18,91		

Upon further observation, the pairwise comparisons showed significant differences between factor 1 through to 5 (see Table 34). These are as follows: Factor 1 ($F[2,640] = 12,12$, $p < 0,05$), Factor 2 ($F[2,640] = 54,91$, $p < 0,05$), Factor 3 ($F[2,640] = 26,58$, $p < 0,05$), Factor 4 ($F[2,640] = 12,13$, $p < 0,05$) and Factor 5 ($F[2,640] = 42,11$, $p < 0,05$) (see Table 34).

Further Bonferroni confidence intervals were computed in order to determine exactly where the difference was apparent among the cultural groups. These findings are presented in Table 35.

Table 35

Pairwise Comparisons for the Pattern of Fear with Culture and Gender as Independent Variable

Dependent Variable	Culture (I)	Culture(J)	Mean difference	Bonferroni intervals		p
Factor 1	Black	White	4,94	2,51	7,37	0,00
		Coloured	3,33	1,05	5,60	0,00
	White	Coloured	-1,62	-3,69	0,47	0,19
Factor 2	Black	White	10,03	7,73	12,33	0,00
		Coloured	6,20	4,05	8,36	0,00
	White	Coloured	-3,82	-5,79	-1,86	0,00
Factor 3	Black	White	4,49	3,00	5,98	0,00
		Coloured	2,32	0,93	3,71	0,00
	White	Coloured	-2,17	-3,44	-0,90	0,00
Factor 4	Black	White	2,19	1,05	3,32	0,00
		Coloured	0,66	-0,41	1,72	0,41
	White	Coloured	-1,53	-2,50	-0,56	0,00
Factor 5	Black	White	3,93	2,82	5,05	0,06
		Coloured	1,03	-0,02	2,07	0,00
	White	Coloured	-2,91	-3,86	-1,95	0,00

Significant differences were apparent for all cultures on factor 2 and 3. No significant differences were found on Factor 1 between the coloured and white South African children, Factor 4 between black and coloured South African children, Factor 6 between black and coloured South African children (see Table 35).

6.7.2 Pattern of fear with respect to gender

A summary of the significant differences of the Factorial MANOVA were presented in Table 33 but these are mentioned once again, due to the relevance to gender. The results of the pattern of fear with respect to gender indicate that there was a significant multivariate Wilk's Lambda transformed to $F[10,1272] = 27,69$, $p < 0,05$.

Table 36 presents the gender effects on the five factors.

Table 36

Tests of Between-Gender Effects for the Five Factors

Source	df	Sum of squares	Mean of squares	F	p
Factor 1	1	5 075,40	5 075,40	56,51	0,00
Error	640	57 480,71	89,81		
Factor 2	1	6 259,19	6 259,19	77,74	0,00
Error	640	51 530,55	80,51		
Factor 3	1	4 226,33	4 226,33	126,37	0,00
Error	640	21 404,69	33,45		
Factor 4	1	1 006,31	1 006,31	51,42	0,00
Error	640	12 526,19	19,58		
Factor 5	1	607,19	607,19	32,11	0,00
Error	640	12 103,17	18,91		

The pairwise comparisons showed significant differences on all factors (Table 36).

Bonferroni Confidence Intervals were computed with respect to gender and the pattern of fear. The results are displayed in Table 37.

Table 37

Pairwise Comparisons for Gender Differences with Regard to the Pattern of Fear

Dependent variable	Gender(I)	Gender(J)	Mean difference(I-J)	Bonferroni Intervals		p
Factor 1	Male	Female	-5,79	-7,31	-4,28	0,00
Factor 2	Male	Female	-6,44	-7,87	-5,00	0,00
Factor 3	Male	Female	-5,29	-6,21	-4,37	0,00
Factor 4	Male	Female	-2,58	-3,29	-1,87	0,00
Factor 5	Male	Female	-2,00	-2,70	-1,31	0,00

Table 37 indicates that girls express more fears that boys.

The results will be discussed in chapter 7.

CHAPTER 7

DISCUSSION

The discussion of the results are broadly divided into the two foci of the research, namely the adaptation of the FSSC-R with respect to reliability and validity as well as the fear profiles based on the South African fear instrument with respect to content, number, level and pattern of fear. The latter will be further subdivided into discussion regarding the overall sample followed by discussion of culture and lastly gender. As such, each independent variable is discussed in terms of each dependent variable. The order of discussion of each dependent variable is as follows: content (ten most common fears), number and level (intensity of fears) and pattern of fear (the sum of the responses of the items contained on each of the factors).

7.1 Reliability analysis

The internal consistency, yielding a coefficient of 0,97 (see Table 5) of the FSSC-SA, was nearly identical to internal consistency coefficients observed using the FSSC-R and as such seems to compare favourably with previous research (Ollendick, 1983; Ollendick et al., 1991, 1996, 1985a) . This score indicates that there is a high internal consistency. It could be that some items were very similar in content and therefore falsely inflate the adapted FSSC-R.

It is interesting to note that some of the deleted items are school-related fears. Some researchers actually report that there is a tendency for scholastic fears to increase during middle childhood (Gullone & King, 1992; Morris & Kratochwill, 1991; Ollendick et al., 1985a; Reed et al., 1992). Research findings by Burkhardt (2002) also report a lack of school related fears and thus this can be attributed to the South African society. Ogbu (1981) argues that the absence of school fears can be seen as a shift of competence, meaning that for certain cultures school may not represent a competency area, resulting in fewer or no school-related fears.

Some items (meeting someone for the first time, being teased, having to wear clothes different from others and doing something new) that were deleted, also had the underlying construct of social fears. This is an interesting finding, since social fears were found to increase during especially late middle childhood in some research findings. Dong et al. (1994) found that

socio-evaluative fears increased for the age group from 11 to 13 in Chinese children. They attributed this to educational pressures to achieve which were at their peak during this period. In the present study, the sample was not further subdivided into age groups and thus no data for the age group from 11 to 13 was obtained, which could provide further clarity on this matter.

Items 44 (having my parents argue) and 67 (mystery movies) were deleted although they demonstrated a good item-total correlation because they were similar in content to items 81 (scary movies) and 94 (mommy and daddy fighting). Items 81 and 94 are derived from the semi-structured interviews and thus represent the actual wording of South African children, which is an important factor in trying to understand and determine children‘s fears. Furthermore, their item-total correlation was slightly higher than that of item 44 and 67. It was thought necessary to delete items, which could wrongly inflate the Cronbach alpha of the scale. There are items (60-going to bed alone; 62-being alone; 75-dark places; 82- to walk alone at night; 85-being alone in the dark) which were retained, despite they similarity in content. These were items, which in previous research have strongly loaded onto the factor pertaining to the fear of the unknown as well as featuring among the ten most common fears (Burnham, 2005; Burnham & Gullone, 1997; Gullone & King, 1992; Fisher et al., 2006; Mellon et al., 2004; Ollendick, 1983) and thus as such seem to make an important contribution to the scale. Future studies could explore their suitability in the inclusion of the FSSC-SA.

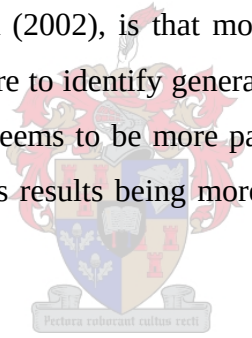
Furthermore, the item ‘getting HIV’ was maintained despite it displaying a poor item-total correlation since this item has in previous studies featured as among the ten most common fears (Burnham, 2005; Gullone & King, 1992; Shore & Rapport, 1998). In a study by Fisher et al. (2006) the item AIDS was actually the most feared item of Trinidadian children assessed with the FSSC-II. As the results of the present study indicate, this item is the most feared item for the South African children and thus justifies its inclusion in the scale (see Table 13).

7.2 Factor analysis

Results of three-, five-, six- and seven-factor solutions were examined to determine which solution was most meaningful and the best fit the data. Results of these solutions indicated that with every solution there were items that scored below the 0,40 cut-off point which some

researchers (Burnham & Gullone, 1997) have used as a guideline and that some items loaded on more than one factor. Furthermore, every solution had one factor which consisted of a mixture of items, meaning that they did not have an overtly logical relationship. Factor solutions six and seven each included one factor with only three items loaded onto it (sharp objects, death or dead people and ghosts or spooky things). These solutions contained a further disadvantage since Gorusch (1997) stated that a trivial factor can be one that has too few items loaded onto it and this seems to be applicable to the 6- and 7-factor solutions. This is further substantiated by Muris and Ollendick (2002), who stated that a factor with too few (four or six) items raises questions regarding its reliability.

Based on past findings (Burnham & Gullone, 1997; Fisher et al., 2006; Gullone & King, 1992; Ollendick, 1983) as well as conceptual considerations, the five factor solution was chosen. The five-factor solution seems to be the most interpretable. Items were allocated to the factor on which they loaded the highest. Furthermore, another consideration, which was pointed out by Muris and Ollendick (2002), is that most researchers and clinicians use the FSSC and its adaptations as a measure to identify general fear sensitivity in children and thus reliance on the five-factor solution seems to be more parsimonious. The five-factor solution also has an advantage in terms of its results being more comparable with those of previous studies.



In line with previous research, the adapted FSSC-R will in future be further referred to as the South African Fear Survey Schedule for Children (FSSC-SA). Mellon et al. (2004) referred to their adaptation of the FSSC-R as the Greek-language version on Ollendick's FSSC-R and named it the 'FSSC-GR'. Shore and Rapport (1998) adapted the FSSC-R for use with an ethno culturally diverse sample of Hawain school children and further referred to this instrument as the 'FSSC-HI'. Burnham (2005) added 20 contemporary fear items to the American version of the FSSC-II and renamed the scale the American Fear Survey for Children (FSSC-AM).

Factor I (Fear of Danger and Death) consists of 21 items which include 'not being able to breathe', 'earthquakes', 'guns' as well as 'strange or mean looking dogs' and accounts for 12,19% of the variance. Furthermore, it seems as if most items are related to the construct of danger and death. Factor II (Fear of the Unknown) accounts for 10,63% of variance and reflects items such as 'dark places', 'to be alone', 'going to the gym' and 'making mistakes'.

The items that load quite strongly onto this factor are closely related to the construct of fear of the unknown. Items such as ‘playing rough games during break’ do not seem to closely relate to the construct of fear of the unknown, although since there is a uncontrollability in this fear it can be seen as a fear of not knowing how the situation will turn out. Furthermore, there has been media coverage regarding break times in schools and the negative activities that are associated with them.

The same can be said for the fear of a ‘bee sting’, since this fear entails a factor of hurt but it also has a mysterious factor to it in that every person reacts differently to bee stings. Furthermore, bee stings can at times, be over-emphasised due to the allergic reaction which may occur. Television may also play a role, with programmes like ‘Discovery’, ‘National Geographic’, ‘Medical Detectives’ and ‘Dr G-Medical Examiner’, which have focused on the mysterious occurances and sometimes this may result in people being overcautious and being a bit paranoid about every-day life.

Television does seem to play a role in influencing people’s fears. In a South African study by Du Plessis (2006), the majority of participants reported that they acquired most fears by modelling experiences, followed by information and conditioning experiences. The most popular source for the information pathway was television. Richard (2005) explored television-content related fears from a sample of pre-school South African children. Research findings indicated that the older the participants were, the more television-related their fears became and as such, that television is influencing the development of childhood fears. Children may either directly or indirectly be exposed to such programmes by parents relaying this information to their children.

Interactions in the microsystem, which is bi-directional in nature may play a role. Factor II comprises of 20 items. While the third factor, Worries; comprises of 15 items and includes fears regarding ‘lizards’, ‘taking a test’, ‘having to go to the hospital’ and ‘being criticised’. The third factor accounts for 8,14% of the variance. Factor III consists of various fear constructs and since the constructs have in previous research been combined into one factor, a similar approach was taken when naming the factor. The naming of this factor is largely based on the fourth factor-Worries in a study by Shore and Rapport (1998). They stated that the respective factor comprised of non-specific and diffuse items.

In Gullone and King's (1992) analysis, one factor was named 'Psychic Stress-Medical Fears'. The same applies to Muris and Ollendick's (2002) analysis, where they named their fifth factor 'Medical and Situational Fears'. In Ollendick's (1983) analysis, the third factor was named 'Fear of injury and small animals'. The fourth factor in the present study, Fear of Animals; accounts for 7,21% and comprises of 8 items which all pertain to fears of animals such as gorillas, lions and baboons.

The last factor-Situational Fears, accounting for 5,85% of variance, consists of 10 items which include fears of elevators, sharp objects and being in a big crowd. Mellon et al. (2004) has named a similar factor, the Fear of Travel and Agoraphobia. The item 'ghosts or spooky things' has high loadings on Factor II, III and V. Although the loading on Factor V is the highest (when rounding is not taken into consideration), it actually can be argued that this factor would be more suited to load onto Factor II-Fear of the Unknown. This is also the factor on which this item loaded more consistently during previous analysis (Burnham & Gullone, 1997; Fisher et al., 2006; Mellon et al., 2004; Ollendick, 1983) (see Table 8).

Although the amount of variance accounted for by the 5-factor solution in the present study is only 44,01% this is comparable to the findings of previous studies, where the FSSC-R has been adapted. Burnham and Gullone (1997) found that the 5-factor solution accounted for 41,30% of variance. In a study by Gullone and King (1992) with the American youth showing the amount of variance being 40,80%. The 7-factor solution which was found to provide the best conceptual fit by administering the Hellenic Fear Survey for Children (FSSC-GR) accounted for 41,00% of the total variance. In a study by Shore and Rapport (1998) a 7-factor solution was reported, which accounted for 36,11% of variance. The above-mentioned indicates that the amount of variance explained by the 5-factor solution in the present study is in accordance with previous studies' findings, where adaptations of the FSSC-R were administered.

While the majority of the FSSC-SA items loaded convincingly onto one of the five factors, there are several items for which the loading is relatively equal on two factors. For example, item 71 (closed spaces) loads onto Factor I (Fear of Danger and Death) and Factor II (Fear of the Unknown). Item 33 (Being in a fight) loads more strongly on Factor I but also has a loading on Factor II. The same applies to item 52 (Strange or mean looking dogs). Item 68 (Loud sirens) and item 22 (Going to the gym) have a loading on Factor II as well as Factor III.

Item 79 (Rats or mice) is salient with Factor III and Factor IV. The latter pertains to Animal fears. Items 91 (Lions) and 86 (Crocodiles) both load onto Factor I (Fear of Danger and Death) as well as Factor IV (Animal Fears). The latter load more convincingly onto Factor IV. Items 6(Ghosts or spooky things) and 7 (Sharp objects) load onto Factor IV and Factor III. Item 6 has an additional loading on factor II (see Table 8).

Factor I of the FSSC-SA has certain similarities with other factor analysis pertaining to the factor of fear of danger and death. Upon comparison with a study by Fisher et al. (2006) 12 items are matched. These matches are: not being able to breathe, being hit by a car or truck, earthquakes, getting a shock from electricity, getting HIV, germs or getting a serious illness, falling from high places, fire-getting burned, a thief breaking into our house, getting lost in a strange place, guns and the possibility of being in an accident.

Muris and Ollendick's (2002) analysis of the factor structure pertaining to the Fear of Danger and Death indicates 13 corresponding items: not being able to breathe, being hit by a car or truck, earthquakes, getting a shock from electricity, getting HIV, bombing attacks-being invaded, germs or getting a serious illness, fire-getting burned, getting lost in a strange place, death or dead people, getting a cut or injury and strange or mean looking dogs.

Although comparisons are made with the study of Muris and Ollendick (2002) it needs to be borne in mind that their findings are based on adolescents and in the present study the sample consisted of middle childhood children. Comparisons were facilitated though by both studies utilising adaptations of the FSSC as well as similar presentation of results. Upon comparison with Ollendick's (1983) factor structure, 10 items correspond (not being able to breathe, being hit by a car or truck, earthquakes, getting a shock from electricity, bombing attacks-being invaded, germs or getting a serious illness, falling from high places, fire-getting burned and getting lost in a strange place) (see Table 8).

Factor II has similarities with factors from previous studies pertaining to the fear of the unknown. Upon comparison with a study by Fisher et al. (2006) only four matches are found (to be alone, having a bad dreams, cemeteries and thunderstorms). More matched items are found upon comparison with other studies such as Ollendick (1983), where nine matches are found (dark places, going to bed in the dark, dark rooms or closets, watching scary movies, being alone, nightmares, cemeteries, getting a bee sting and thunderstorms). Ten matches are

found when comparing the factor-fear of the unknown to the corresponding factor. These matches are: dark places, going to bed in the dark, dark rooms or closets, to be alone, watching scary movies, being alone, nightmares, cemeteries, loud sirens and thunderstorms (see Table 8).

Factor III contains a mixture of fears and thus few similarities are found. Six matched items (lizards, worms or snails, spiders, bats or birds, rats or mice and ants or beetles) are however apparent when this factor is compared to the animal fears' factor in the study by Mellon et al. (2006). This also applies to the findings by Ollendick (1983). Factor IV is similar to Factor IV in a study by Gullone and King (1992). The exception in the current study is that all the items comprise an animal fear. Factor V resembles Factor V in a study by Muris and Ollendick (2002). In the latter, researchers named Factor V Medical and Situational Fears. Since in the present study no medical fears are present on Factor V, it was decided to name the factor only Situational Fears. Three matches are apparent (high places like mountains, flying in a plane and roller coaster or carnival rides) upon comparison. Factor V also resembles Factor IV (Travel and Agoraphobic Fears) in a study by Mellon et al. (2004). Five matches were found upon comparison being: the fear of high places like mountains, flying in a plane, roller coaster or carnival rides, being in a big crowd and sharp objects (see Table 8).

The five factor solution is not congruent across nationality. This suggests that the factor scores are not that comparable across different nationalities. This finding is however, consistent with results of previous research. A comparison of the factor structures resulting from other analysis of different versions of the FSSC showed that in all of the studies using the five-factor solution this emerged in a different order. As pointed out by Fischer et al. (2006), this means that the factor representing fear of failure and criticism emerged as the first factor in Ollendick's (1983) analysis, third factor in Gullone and King's (1992) analysis, the fifth factor in Burnham and Gullone's (1997) analysis and as the second factor in Muris and Ollendick's analysis (2002). Burnham's (2005) study identified the fifth component as pertaining to the Fear of Criticism/Failure. In the analysis by Fisher et al. (2006) the second factor was labelled as School Fears/Fear of Failure and Criticism. In the present analysis the factor pertaining to the fear of failure was also the second. The above-mentioned also applies to other factors in the present study's factor order (see Table 8).

Another important observation is that several factors, in the above-mentioned studies, with

respect to content, were not entirely consistent across analysis. In Ollendick's (1983) analysis the fifth factor pertaining to medical fears consisted of medical fear items, as well as two items that did not seem to have a readily apparent relationship to the construct such as riding in the car and talking on the telephone. In Gullone and King's (1992) analysis the fifth factor was labelled Psychic Stress-Medical Fears indicating that this factor did not solely consist of medical items, but also of social fear items, such as having to talk in front of my class, going to a new school and having no friends. In the analysis by Burnham and Gullone (1997) the fourth factor was labelled School/Medical Fears and as such consisted of school fear items as well as medical fear items. In Muris and Ollendick's (2002) analysis the fifth factor (Medical and Situational Fears) consisted of medical fear items together with fears which were called situational fears such as high places, flying in a plane and closed spaces. In Burnham's (2005) analysis the second (Fear of the Unknown) and third components (School/Social Fears) contained medically-related fear items. Fisher et al.'s (2006) fourth factor (Medical Fears) on the other hand, only consisted of medically-related items. In the present study the third factor, labelled as Worries consists of items underlying the fear of small animals, injury, failure and criticism as well as school fears (see Table 8).

The results of the FSSC-SA factor analysis lead to certain questions pertaining as to why different factor structures have emerged across countries, as well why some factors are composed of items with no readily apparent relationship. Several points have been discussed by Geisinger (2003), which might be of relevance.

Geisinger (2003) mentions the concept linguistic equivalence, which refers to whether the language used on a test is equivalent in each context within which the test is used. Although the FSSC-R originated in America, the semi-structured interviews as well as the back translation methods should in some manner have counter balanced this. Another concept mentioned is functional equivalence. This concept refers to whether the domain of behaviours' sample on a test has the same purpose and meaning in different cultures. Another aspect to bear in mind is that items may be encountered differently by people within different cultural contexts. This implies that respondents may experience different frequencies of either direct or indirect exposure to the item.

Instrument bias is also discussed by Geisinger (2003) which states that cultures may differ in the tendency of their members disclosing personal issues about themselves. This has reference

to the FSSC since it is a self-report measure where personal disclosure may play a role and as such can have some effect on the results of the present analysis.

The role that semantics plays is also important (Neal & Turner, 1991). Children from a particular background may be more likely to report fears in more specific terms, whereas those from a different background might use more generic terms. This may influence the actual factor structure. The usefulness of factor analysis can be questioned as a result. This has also been mentioned by Fabriger et al. (2006).

On the basis of the findings of the present study, the factor structure of the FSSC-SA with its deleted and new items, appears to be similar to the factor structure found in previous studies (Burnham, 2005; Burnham & Gullone, 1997; Fisher et al., 2006; Gullone & King, 1992; Mellon et al., 2004; Ollendick, 1983)

7.3 Content of fear

The content of fear results with regard to the overall sample is discussed first, followed by the individual cultures. Then the results will be discussed in terms of gender and the overall sample and thereafter, once again with respect to each culture.

7.3.1 Content of fear with respect to overall sample and cultures

The results indicate that the most feared item is ‘getting HIV’ which was endorsed by 78,48% of the participants. This finding can be attributed to the role HIV/AIDS plays on the African content, since according to Kauffman (2000), the HIV epidemic raging across Africa is a tragedy of epic proportion, reducing life expectancy, raising mortality, lowering fertility, creating an excess of men over woman and leaving millions of orphans as a result. AIDS was also the most feared item in a study by Gullone and King (1993) and featured among the ten most common items in studies by Burnham (2005), Burnham and Gullone (1997) and Shore and Rapport (1998). Interesting to note that despite the fact that the item ‘getting HIV’ was only included in the extended FSSC-R due to it featuring among the ten most common fears in previous studies (Burnham, 2005; Gullone & King, 1992; Shore & Rapport, 1998) as well as its relevance to the South African context (Kauffman, 2000), it was the most feared item. Another possible reason for this can be based on the criticism of the FSSC-R, namely that

children are reflecting only their response to the thought of the specific event and as such that fear rank order only reflects fears that children have the most negative attitude towards McCathie & Spence, 1991). It could also to some extent be attributed to the methodology used. Muris et al. (1997a) found that with the free option method, which is similar to the semi-structured interviews conducted in the present study, more animal fears were reported and that with the FSSC-R more fears relating to the danger and death factor were reported. This co-incides with the findings in the present study.

An important finding of the present study is that even though the contemporary items were added to the FSSC-R the ten most common fears are similar to those found elsewhere in the world (Ollendick, 1983; Ollendick, et al., 1989, 1991, 1996; Mellon et al., 2004; Muris et al., 2000a). Upon cross-sectional comparison (when looking at the overall sample as well as individual cultures) at least four matches can be found. This is in line with the statement that the content of fear is similar across different countries and cultures, where the FSSC-R and its adaptations, are administered. To provide an comparison and as such an example of the above-mentioned, the fear rank order of the first ten fears according to a recent study by Mellon et al. (2004) where a Greek-language version of the FSSC-R was administered to children between the ages of 7 to 12 is shown in Table 38.

Table 38

Rankings of the Ten Most Common Fears for Hellenic Children (Mellon et al., 2004)

1. Being hit by a car or truck
2. Bombing attacks-being invaded
3. Not being able to breathe
4. Getting a shock from electricity
5. Fire-getting burned
6. Falling from high places
7. A burglar breaking into our house
8. Having my parents argue
9. Germs or getting a serious illness
10. Failing a test

As can be seen by Tables 12 and 38, the ten most common fears of all the South African children in the present study display five matches upon comparison to the most fear eliciting items in the study by Mellon et al. (2004). These items are: not being able to breathe, being hit by a car or truck, falling from high places, bombing attacks-being invaded and getting a shock from electricity.

Table 12 indicates that four of the most feared items for all the South African children, are contemporary/new items. For the black children, five of the then most common fears, are new fears. The coloured children endorsed five of the new fears strongly and the white children displayed a strong fear for two of the new items. Ramirez and Kratochwill (1997) and Burnham (2005) found that the additional items displayed a fairly high prevalence on the adapted scales. This is in line with the present study and indicates that the participants not only endorsed the new items but that these items also reflect societal concerns, issues and children's fears.

Various researchers report that during middle childhood there is a tendency for fear of bodily injury or harm to decrease paired with an increase in scholastic fears (Gullone & King, 1992; Morris & Kratochwill, 1991; Ollendick et al., 1985a; Reed et al., 1992). The results of the present study indicate that school-related fears did not feature in the ten most common fears. In a study by Burkhardt (2002) school related fears were only present among the ten most common fears for the white South African children. The findings of the present study may indicate that school-related fears are overshadowed by other more relevant fears (i.e the change in South African climate). The additional items represent fears that are stronger than school-related fears, which may result form the possibility that the educational climate has changed. It is important to bear in mind that all four selected schools were public schools, which depend on the school board to generate additional funds. Furthermore, as mentioned earlier, the absence of school fears may also be attributed to a shift in competence and that academic achievement might not seem as important.

The fear of bears or wolves featured among the most common fears for the overall sample. A similar finding was apparent for the coloured South African children in a study by Burkhardt (2002) and may be attributed to the fact that children fear the unknown because bears or wolves are not a natural phenomena in South Africa. The fear of ghosts, which was the most feared item for the black South African children may be ascribed to superstition among the black South African cultures (Lauscher & Klinger, 1997; Magubane, 1998).

Frequent references with regard to fear profiles will be made during the discussion to a study by Burkhardt (2002) because the study provides normative data for middle childhood children from the Western Cape, South Africa where the FSSC-R was administered, approximately 5

years prior to the present study. Thus, comparisons will be much more appropriate than those made to studies from elsewhere since the participants in both studies are from the same geographical area.

In Table 39 the FSSC-R fear based rank orders for the total sample and each individual culture in the study by Burkhardt (2002) is represented.

Table 39

FSSC-R Based Fear Rank Orders in a Study by Burkhardt (2002)

Total sample

1. Not being able to breathe
2. Being hit by a car or truck
3. Falling from high places
4. Getting a shock from electricity
5. Getting lost in a strange place
6. Bombing attacks-being invaded
7. Germs or getting a serious illness
8. Death or dead people
9. A burglar breaking into our house
10. Fire-getting burned

Black South African children

1. Bombing attacks-being invaded
2. Getting an electric shock
3. Guns
4. Not being able to breathe
5. Death or dead people
6. Cemeteries
7. Ghosts or spooky things
8. Snakes
9. Germs or getting a serious illness
10. Being hit by a car or truck

Coloured South African children

1. Falling from high places
2. Not being able to breathe
3. Getting lost in a strange place
4. Being hit by a car or truck
5. Getting an electric shock
6. Germs or getting a serious illness
7. Bears or wolves
8. Death or dead people
9. Earthquakes
10. A burglar breaking into our house

White South African Children

1. Not being able to breathe
2. Falling from high places
3. Being hit by a car or truck
4. A burglar breaking into our house
5. Bombing attacks-being invaded
6. Failing a test
7. Fire-getting burned
8. Getting poor grades
9. Getting an electric shock
10. Getting lost in a strange place

The ten most common fears of the present study were compared to the ten most common fears displayed in middle childhood children in a study by Burkhardt (2002) where the FSSC-R was administered and five matches are apparent (see Tables 12 & 39). These are: not being able to breathe, being hit by a car or truck, bombing attacks-being invaded and getting a shock from electricity. These matched items indicate that fears remain relatively constant with respect to a particular age group.

Five matches are found when comparing the ten most common fears of the black South African children (see Tables 13 & 39) in the present study and with the black children's ten most common fears in the study by Burkhardt (2002). The matches that are found are: ghosts or spooky things, death or dead people, bombing attacks-being invaded, guns and getting a shock from electricity. It is interesting to note that in the Burkhardt (2002) study, the fear of snakes was among the most feared items which is not the case in the present study. This may be attributed to the fact that more relevant animal fears are present on the FSSC-SA and that these may have replaced the fear of snakes as one of the most feared items. It is important to mention that although the fear of snakes is not among the ten most feared items, it is still an item that was endorsed strongly.

Upon comparison of the ten most common fears of the coloured South African children in the present study and those in the study by Burkhardt (2002) five matches are found: falling from high places, bears or wolves, not being able to breathe, being hit by a car or truck and getting a shock from electricity. The other five most fear items endorsed by the coloured children in the present study stem from the added items, suggesting their applicability to the context of the coloured South African children (see Tables 14 & 39).

For the white South African children there are seven matches when the ten most feared items are compared to those of the white South African children in the study by Burkhardt (2002). The items that correspond are: being hit by a car or truck, not being able to breathe, fire-getting burned, bombing attacks-being invaded, falling from high places, a thief breaking into our house and getting a shock from electricity (see Tables 15 & 39). It is interesting to note that for the white South African children the fear of earthquakes is among the ten most common as it was not among the ten most common fears in the study by Burkhardt (2002). This may be as a result of the focus on the devastation of natural disasters especially in the wake of hurricane Katrina and the Tsunami in the media. It is important to mention that the

adapted Fear Survey Schedule for Children Revised was administered a few days after hurricane Katrina struck.

There are also numerous documentaries regarding natural disasters on television. This suggests that children are influenced by what happens in their macrosystem and as such also the chronosystem, confirming that there is interaction among the systems. This could also further indicate that some fears are learned. For example, when the Tsunami occurred everybody reacted with shock and disbelief and thus a lot of fear was evoked. This behaviour was modelled by adults and children may then have acquired it. The fear of earthquakes has, however, been among the most feared items in previous studies (Ollendick et al., 1989, 1991; Ollendick & King, 1994).

A possible reason why so many of the ten most common fears of the white South African children in the present study coincided with those endorsed by the white South African children, although the instrument that was administered differed a bit, suggests that some fears are universal. Another possible reason is that the society in which the FSSC-R was originally developed is more similar to the society in which the white South African children live and thus may have a higher degree of initial suitability to their circumstances/world.

7.3.2 Number of fear with respect to overall sample and cultures

As mentioned previously, reference will be made to the study of Burkhardt (2002) since this study was done in the same geographical region as the present study and the data was obtained by administering the FSSC-R, on which the FSSC-SA was based. Furthermore, the content of fear has shown that some fears are universal and thus that results can, to a certain extent, be compared.

In the study by Burkhardt (2002), the number of fears for all the South African children was 25,32. The number of fears for the black culture (M=32,94) was the highest, followed by the coloured culture (M=26,71) and lastly, the white culture (M=16,07).

In the present study, the order is exactly the same with the black South African children (M=37,44) displaying the highest number of fears, followed by the coloured South African children (M=29,63) and lastly the white South African children (M=20,00) (see Table 24).

Caution should be taken when comparing the actual mean scores, since the definition of the number of fears relates to the number of items that were marked as a lot and since the FSSC-R and the FSSC-SA differ in length (i.e. the number of total items on each scale, meaning 80 for the FSSC-R and 74 for the FSSC-SA). It is interesting to note, however, that the number of fears for all categories seems to have increased in the present study despite the fact that fewer items were present on the scale. This may be attributed to children experiencing more stress than a few years ago, the possible effects of globalisation and re-emphasising the need for effective assessment tools, in order for early identification of fears and anxiety symptoms to be made, which facilitate early intervention. Furthermore, the onset of many adult psychological problems can be traced back to childhood, especially with respect to anxiety disorders (Shore & Rapport, 1998). The above-mentioned highlights the important contribution the present study can make.

The results indicate that black and coloured South African children may share a common denominator when it comes to the expression of fears. The white South African children's lower number of fear status may be as a result of these children being more exposed to a Westernised culture. Generally, it appears as if African countries stress more obedience, self-control, emotional restraint and compliance which may result in more fears being expressed (Ollendick et al., 1996). This is supported by Weisz, Sigman, Weiss and Mask (1993) who have demonstrated that over-controlled problems are displayed more frequently by Kenyan children and adolescents with fewer under-controlled problems than their American counterparts.

A recent study (Muris et al., 2006) where DSM-IV anxiety symptoms in South African youths and parental rearing behaviours were explored, sheds some light on possible causal factors for the high number of fears reported in the present study. The results indicate that white youths generally rated their parents' rearing behaviours as less anxious, overprotective and rejective and more emotionally warm than black and coloured youths. The results also found a positive relationship between anxious rearing, overprotection, rejection and anxiety symptoms. The researchers however, mention the role that socioeconomic status may play in parental rearing behaviours, and thus indicate that other factors also seem to be involved in the cultural differences found among anxiety symptoms. Due to the disparities, the Apartheid policy has left coloured and black youths to live in an environment that is more stressful, as well as threatening than the white youths, which thus could also explain some of the differences

found.

In conclusion, the number of fears indicate significant differences among the cultural groups and also seem to be higher in comparison to previous findings. Possible mediating factors such as culture and socio-economic issues were discussed.

7.3.3 Level of fear with respect to overall sample and cultures

Significant differences are apparent with respect to the level of fear. The level of fear was the highest for the black South African children (M=164,82), then the coloured South African children (M=152,17) and lastly, for the white South African children (M=139,32) (see Table 28-30). Since the level of fear is the mean sum of the fear responses out of the total fear items. This implies that it is a score out of a possible 222 and thus caution should be taken when comparing mean results of the FSSC-SA with results in other studies, since the total number of items differs. Results will be discussed in general terms.

In the study by Burkhardt (2002), the level of fear was the highest for the black children (M=173,70), followed by the coloured children (M=157,64) and then by the white children (M=137,39). The level of fear for countries such as America, Australia and China was found to be lower than the level of fear in the Burkhardt (2002) study. The exception was for Nigerian children, who displayed a similar level of fear in comparison to the South African children in the Burkhardt (2002) study. The same holds true to the level of fear among Nigerian and Kenyan children in a study by Ingman et al. (1999). The above-mentioned seems to suggest that non-white children from Africa are, in general, characterised by high levels of fearfulness.

It is interesting to note various studies have demonstrated that even within the American society, children with an African background seem to have higher fear levels when the FSSC-R is administered than white American children (Neal et al., 1993; Last & Perrin, 1993). It is important to bear in mind though, that factors such as socio-economic background, poor living conditions, and socialisation practices may also contribute to the differences. Neal and Turner (1991) suggested that differences in fear levels might be rooted in semantics, meaning that the African American children may be more likely to use specific terms to report their fears and thus score higher than the white children, who are more likely to describe their fears

in generic terms.

Another interesting finding was that the Bedouin Israeli and Jewish Israeli children displayed a lower level of fear than the children in the Burkhardt (2002) study and may be attributed to cultural values or difference (Elbedour et al., 1997) as well as the way in which children within a specific culture, understand the environment in which they live in (Slee & Cross, 1989).

Furthermore, the difference in fear levels among the three cultural groups in the present study, with the black and coloured children displaying a higher level of fear and anxiety than the white children, is in accordance with a study on anxiety symptoms in South African children by Muris et al. (2002b). The researchers provided a number of reasons for this finding.

Firstly, coloured and black children come from a lower socio-economic background than the white children and thus, the SES may be a contributing factor to higher levels of fear and anxiety primarily due to the poor living conditions. This statement was supported by demographic information provided by the participants, where for example, black children more frequently lived with big extended families in small informal houses-often referred to as a shack, than did the coloured and white children (The same information was obtained in the present study).

Furthermore, South African children find themselves living in a society where the Apartheid policy has left severe disparities. These remain to have a negative impact on the ability of some families to provide the fundamental needs for their children. Deprivation, violence, poor mental health and inferior education have resulted in inequalities amongst children of different cultural groups as well as socio-economic status (Biersteker & Robinson, 2000). Burkhardt et al. (2002) highlighted that differences in rearing practices may be relevant, which is supported by the findings of Muris et al. (2006) and that black, as well as coloured cultural groups rely more strongly on socialisation customs, which promote fear and anxiety in children compared to that of the white community.

Another important explanation mentioned by Burkhardt et al. (2002) also seems to have relevance to the present study. The children in the present study where of an age were they had not consciously experienced the Apartheid policy but their older family members have

and thus may have witnessed the effects of this system, which promoted violence within non-white communities. This in turn may have resulted in feelings of insecurity in these communities and as such fear and anxiety (Pillay et al., 1999, Rudenberg, et al., 1998; Zissis, Ensink & Robertson, 2000).

7.3.4 Pattern of fear with respect to overall sample and cultures

The level of fear was explored across all five factors by means of a MANOVA. The three cultures and gender were the independent variables and fear was the dependent variable, with the aim to determine whether any significant differences with respect to the pattern of fear was apparent. Significant differences were found with respect to culture and gender (see Tables 32-37).

As previously mentioned, it seems as if the five-factor structure should be compared with caution, since there is some concern regarding the consistency of the five-factor structure (Fisher et al., 2006).

The South African children's order of factors form highest to lowest average fear score ranges from factor 1,2,3,5 and 4 (see Table 32). This overall factor order holds true for the individual South African cultures as well (see Table 32).

7.3.5 Gender and content of fears

The content of the ten most common fears originate mainly from factor 1, danger and death. This also holds true for the majority of the ten most common fears for boys and girls of each culture except for the black South African girls, where factor 1, 2 and 4 are represented among the ten most feared items.

Table 40 represents the ten most common fears for the South African boys and girls as results have indicated in the study by Burkhardt (2002).

Table 40
Fear Rank Order for the South African Boys and Girls Based on the Results of the FSSC-R according to Burkhardt (2002)

Boys
1. Not being able to breathe
2. Getting a shock from electricity
3. Being hit by a car or truck
Falling from high places
5. Bombing attacks-being invaded
6. Germs or getting a serious illness
7. Death or dead people
8. Getting lost in a strange place
Bears or wolves
Fire-getting burned
Girls
1. Not being able to breathe
2. Being hit by car or truck
3. Getting lost in a strange place
4. Falling from high places
5. A burglar breaking into our house
6. Snakes
7. Getting a shock from electricity
8. Germs or getting a serious illness
9. Bombing attacks-being invaded
10. Guns

Upon comparison of the half of the most feared items for the boys and girls of the present study with the results of the study by Burkhardt (2002), the following matches can be found: For the boys five matches are apparent (not being able to breathe, being hit by car or truck, bombing attacks-being invaded, falling from high places and bears or wolves). For the girls five matches were also apparent (falling from high places, getting a shock from electricity, being hit by a car or truck and not being able to breathe). The above-mentioned suggests that the content of fear remains relatively the same during middle childhood. It is important to mention that the other unmatched fears for both the boys and girls, mainly originated from the added fears, suggesting that standarising the FSSC-R for South African circumstances may make an invaluable contribution to the greater understanding of middle childhood fears.

For comparative purposes Tables 41 & 42 represent the most fear eliciting items Greek boys and girls expressed in a study by Mellon et al. (2004).

Table 41
Rankings of the Most Fear-Eliciting Items Expressed by Greek Boys (Mellon et al., 2004)

1. Being hit by a car or truck
2. Not being able to breathe
3. Bombing attacks-being invaded
4. Getting a shock from electricity
5. Fire-getting burned
6. Having my parents argue
7. Falling from high places
8. A burglar breaking into our house
9. Germs or getting a serious illness
10.Failing a test

As can be seen in Table 41 a scholastic fear was among the most fear items, which is a fear that is not really apparent, not only among the South African boys but also the overall sample (see Table 16). Furthermore, four matches are found upon comparison of the Greek and South African boys' most feared items. These items are: not being able to breathe, being hit by a car or truck, bombing attacks-being invaded and fire-getting burned (see Tables 16& 41).

Table 42
Rankings of the Most Fear-Eliciting Items Expressed by Greek Girls (Mellon et al., 2004)

1. Being hit by a car or truck
2. Bombing attacks-being invaded
3. Not being able to breathe
4. Getting a shock from electricity
5. Fire-getting burned
6. A burglar breaking into our house
7. Falling from high places
8. Germs or getting a serious illness
9. Snakes
10.Getting lost in a strange place

Five matches are apparent when comparing the most fear-eliciting items of the Greek and South African girls (see Tables 17 & 42). These matches are: falling from high places, getting a shock from electricity, being hit by a car or truck, not being able to breathe and bombing-attacks-being invaded.

All the items that match for the Greek boys and girls with the South African boys and girls are part of the original FSSC-R. The unmatched items for the South African children mainly originate from the added fears. This combination suggests that some fears are universal and some fears represent the idiosyncrasies of each culture, and as such that culture mediates the expression of fears in culturally diverse populations (Burkhardt, 2002; Shore & Rapport,

1998).

An interesting observation is that, among the ten most common fears for the black South African girls, quite a lot of animal fears are present (see Table 19). Westernberg et al. (2004) reported that fears concerning physical danger, as well as punishment, decrease with age with an increase in social evaluation and achievement fears. The finding of the black girls contradicts this statement. Westernberg et al. (2004) however, reported that this decline occurs during late childhood and adolescence and the researchers also reported that with a scale containing more items of physical fear such a decline, when it is observed, is more observable. The FSSC-SA does contain a fair amount of animal fears. Furthermore, this prevalence of animal fears may also be contributed to SES (Graziano et al., 1979; Neal et al., 1993) as well as the fact that the black South African girls' most feared items entailed more that ten items, since a few items were endorsed with the same value, thus the results may also be a bit skewed.

There are seven matched items (getting HIV, bears or wolves, sharks, falling from high places, tigers, crocodiles and getting a shock from electricity) among the black and coloured girls, which may suggest that the world they live in is fairly similar and thus they share a similar world view. There are fewer matched items (getting HIV, being hit by a car or truck, bombing attacks-being invaded and fire-getting burned) amongst the black and coloured boys, suggesting that when interpreting the girls' results, one needs to do so with caution since, as previously mentioned, the black South African girls have 15 items that represent the most feared items since these were endorsed with the same intensity and thus there is a higher chance of finding a match (see Tables 19 & 21).

On the other hand, there are seven matches (getting HIV, not being able to breathe, being hit by a car or truck, sharks, fire-getting burned, bombing attacks-being invaded and lions) among the black and white boys' most fear eliciting items and five matches (getting HIV, sharks, falling from high places, bombing attacks-being invaded and getting a shock from electricity) among the black and white girls (see Tables 19 & 23). There are five matches among the coloured and white boys and girls (getting HIV, not being able to breathe, fire-getting burned, bombing attacks-being invaded and lions) and four (getting HIV, sharks, falling from high places and getting a shock from electricity) respectively (see Tables 20-23). This, together with the above mentioned, indicates that although there are various cultures

present within the South Africa context with their own traditions, there seems to be a common denominator which is shared to a greater or lesser degree by cultures as well as genders.

The ten most common fears for Black South African boys and girls according to the results of the FSSC-R are displayed in Table 43.

Table 43
Fear Rank Order for the Black South African Boys and Girls Based on the Results of the FSSC-R according to Burkhardt (2002)

Boys
1. Bombing attacks-being invaded
2. Getting a shock from electricity
3. Death or dead people
4. Ghosts or spooky things
Not being able to breathe
6. Being hit by a car or truck
Cemeteries
8. Germs or getting a serious illness
Guns
10. Nightmares
Earthquakes
Girls
1. Snakes
2. Bombing attacks-being invaded
3. Guns
4. Getting a shock from electricity
5. Not being able to breathe
Cemeteries
7. Ghosts or spooky things
Germs or getting a serious illness
9. Death or dead people
Fire-getting burned
Being hit by a car or truck

When comparing the most fear eliciting items of the present study and those of the study by Burkhardt (2002) four matches are found for the black South African boys and five matches are found for the black South African girls (see Tables 18, 19 & 43). The four matched items for the boys are: ghosts or spooky things, not being able to breathe, bombing attacks-being invaded and being hit by a car or truck. The five matched items for the girls are: bombing attacks-being invaded, death or dead people, ghosts or spooky things getting a shock from electricity and cemeteries. The majority of the most fear eliciting items for the black boys and girls load onto Factor I, danger and death. The remainder of the fears load mainly onto Factor

IV, fear of animals with a few exceptions.

The most fear eliciting items as assessed by means of the FSSC-R for the coloured South African children in the study by Burkhardt (2002) are represented in Table 44.

Table 44
Fear Rank Order for the Coloured South African Boys and Girls Based on the Results of the FSSC-R according to Burkhardt (2002)

Boys
1. Falling from high places
2. Not being able to breathe
3. Bears or wolves
Getting a shock from electricity
5. Being hit by a car or truck
6. Germs or getting a serious illness
7. Getting lost in a strange place
8. Death or dead people
9. Earthquakes
10.Getting poor grades
Guns
Bombing attacks-being invaded
Fire-getting burned
Girls
1. Getting lost in a strange place
2. Falling from high places
3. Being hit by a car or truck
Not being able to breathe
5. A burglar breaking into our house
6. Germs or getting a serious illness
7. Death or dead people
Earthquakes
9 Getting a shock from electricity
10.Guns
Bears or wolves

Looking at the coloured South African boys and girls and comparing the ten most common fears among the present study and that of Burkhardt (2002), seven and four matches are found respectively (see Tables 20, 21 & 44). For the boys the matched items are: being hit by a car or truck, falling from high places, bombing attacks-being invaded, getting a shock from electricity, bears or wolves, getting lost in a strange place and fire-getting burned. For the girls the matched items are: bears or wolves, falling from high places, getting lost in a strange place and getting a shock from electricity. The majority of the ten most common fears for the

coloured South African boys load onto the first factor, fear of danger and death. The same does not apply to the coloured South African girls. Their most common fears are equally load on factor I, danger and death, and factor IV, fear of animals.

The ten most common fears for the white South African boys and girls which were assessed by means of the FSSC-R in a study by Burkhardt (2002) are shown in Table 45.

Table 45
Fear Rank Order for the White South African Boys and Girls Based on the Results of the FSSC-R according to Burkhardt (2002)

Boys	Girls
1. Not being able to breathe	1. Not being able to breathe
2. Being hit by a car or truck	2. Falling from high places
Failing a test	A burglar breaking into our house
4. Getting a shock from electricity	4. Bombing attacks-being invaded
5. Falling from high places	5. Getting poor grades
6. Fire-getting burned	6. Being hit by a car or truck
7. Bombing attacks-being invaded	Fire-getting burned
A burglar breaking into our house	8. Snakes
9. Germs or getting a serious illness	9. Getting lost in a strange place
10.Getting poor grades	10.Failing a test

Six matches are found upon comparison of the present study and the study by Burkhardt (2002) for the white South African girls and boys (see Tables 22, 23 & 45). The matched items for the boys and girls are exactly the same and are: not being able to breathe, being hit by a car or truck, fire-getting burned, a thief breaking into our house, bombing attacks-being invaded and falling from high places. The majority of the ten most common fears for the white South African boys and girls load on to the first factor, fear of danger and death.

An important issue that needs further investigation and which has been raised by various

researchers, pertains to the question of what the FSSC is really measuring because of the strong loading the ten most common fear items have on the factor, fear of danger and death. This concern was not addressed in the present study. It can be argued is that items from the factor of fear for danger and death feature strongly as the most feared eliciting items, despite that these items have a low probability of actually occurring. Researchers have implied that these items probably reflect children and adolescents' appraisal of threat in case they would be confronted with such events rather than actual fear levels (McCathie & Spence, 1991).

Muris et al. (2002) further investigated this matter as well as whether different interpretations of fear items might affect the outcome of the responses on fear surveys, meaning that measures, such as the FSSC-R contain many items referring to dangerous situations that have a hypothetical status for many children. Thus children's ratings of such items are often not based on actual confrontations with such situations and may reflect children's appraisal of the threat in case they would be confronted with such an event. Children's trait anxiety levels are more likely to play a role in children's perception of a threat than children's actual fear levels (Marks, 1987). The researchers advocated that future studies should explore the utility of the FSSC-R further and into which domains it taps.

The above-mentioned comparisons indicate the extent to which findings among the different cultures in South Africa correlate with other studies as, providing an indication of the generalisability of fears as well as of the culture specific fears.

7.3.6 Gender and number of fears

Gender differences are present with regard to the number of fears being present, with girls expressing significantly more fears that boys (see Tables 24, 25 & 27). This also holds true for all the individual cultures and is consistent with the results in a study by Burkhardt (2002). Previous studies have found similar results although there are some contradictions (Burnham & Gullone, 1997; Dong et al., 1994; Elbedour et al., 1997; Graziano et al., 1979; King et al., 1989; Lapouse & Monk, 1959; Ollendick et al., 1985a, 1989, 1991; Scherer & Nakamura, 1968; Slee & Cross, 1989; Spence & McCathie 1993). In the South African context this may be attributed to gender role stereotyping, which remains to be a strong phenomena, especially in certain cultures (Bozalek, 1997). This trend has often been ascribed to gender role expectations and or as a result of the socialisation process (Gullone, 1999). Girls may thus be

more willing to admit to fears than boys.

An interesting finding was made by Ollendick et al. (1996) were the results indicated that generally girls express more fears than boys with the exception of the Nigerian children, where the boys expressed more fears than the girls. By comparison, it seems as if South African children experience higher number of fears. There seems to be a trend that African children, especially children of African descent, have a tendency to be more fearful than elsewhere in the world with a few exceptions in different cultures and beliefs (Ingman et al., 1999).

In the past, it has been hypothesized that age related decreases in fears of personal safety, the dark, imaginary creatures and animals reflect children's cognitive development (Morris & Kratochwill, 1983). Since no age specific investigation was done in the present study it is difficult to determine the relevance of the above-mentioned to the present sample and findings. Lifestyle changes and increased exposure to the danger of personal safety in the media over recent years, may play a role in the expression of fears. The South African society is associated with high levels of crime and violence (Seedat, van Nood, Vythilingum, Stein & Kammer, 2000). Future studies could provide more insight into this matter.

7.3.7 Gender and level of fears

The trend of girls expressing more fears than boys is also applicable to the intensity of fears. Girls express a significantly higher level of fear than boys (see Tables 28, 29 & 31). This is a trend that has been documented in earlier studies (Burkhardt, 2002; Ollendick et al., 1996).

7.3.8 Gender and pattern of fears

Significant differences were found on all factors with respect to boys and girls, with girls consistently expressing more fears than boys (see Tables 32, 33, 36 & 37).

The fear rank order with regard to gender is the same for the overall sample and the individual cultures (see Tables 32, 33, 36 & 37), with girls consistently displaying a higher level of fear on the respective factors than boys.

The present study's findings seems consistent with previous findings since most studies have found age and gender differences of factor scores, with the pattern of differences varying across cultures (Burnham & Gullone, 1997; Elbedour et al., 1997; Ollendick, 1983; Ollendick et al. 1996).

7.4 Chapter summary

Reliability analyses were conducted on the data obtained by the adapted FSSC-R. Item-total correlations and exploration of the item construct resulted in 23 items being deleted. The remaining items on the scale demonstrated good internal consistency (α = 0,97). The factor structure of the remaining items was explored by means of principal factor analysis with varimax rotation. Various factor solutions (3-, 5-, 6-, 7-factor solutions) were explored and the five factor solution was found to be the best conceptual fit for the data. The five factors are: Factor I-Fear of Danger and Death, Factor II-Fear of the Unknown, Factor III- Worries, Factor IV-Fear of Animals, Factor V-Situational Fears. The adapted scale is a South African version of Ollendick's FSSC-R and is referred to as the FSSC-SA.

The most feared item for the South African children is 'getting HIV'. The ten most common fears indicate that fears are, to a certain extent, universal but that some fears also reflect the context in which a child lives. Furthermore, the added/new items also featured among the ten most common fears, suggesting that these items reflect the societal concerns, issues and fears of South African children. Black South African children had the highest number as well as level of fear, followed by the coloured South African children and then the white South African children. This was also applicable to the pattern of fear. Gender differences are apparent with respect to number, level and pattern of fears, with girls consistently expressing more fears than boys. This applies to all cultural groups.

In chapter 8 a conclusion of the present study is provided.

CHAPTER 8

SUMMARY OF FINDINGS; RECOMMENDATIONS AND CRITICAL REVIEW

The main findings of the present study are summarised in this chapter, followed by recommendations for future studies and a critical review of the study is provided.

8.1 Main findings

The main findings of the present study are summarised with regard to the actual procedure that was followed when conducting the research. Thus, findings are presented with respect to the semi-structured interviews, reliability analyses, factor analysis, content of fear, number and level of fear (grouped together) and pattern of fear. Firstly the content of fear, number and level of fear as well as pattern of fear is discussed in terms of the all the South African children, followed by the individual cultures and then in terms of gender. Lastly, the findings and their implications for the South African context is presented.

8.1.1 Findings with regard to the semi-structured interviews

Semi-structured interviews were conducted with a diverse group of 40 children, transcribed and analysed for emerging themes with the aid of ATLAS.ti. This process resulted in 17 new/contemporary items being added to the end of the existing FSSC-R. The wording of the items was based, as far as possible, on the actual wording that the children used. The 17 items were: watching scary movies, to walk alone at night, the possibility of being in an accident, getting HIV, being alone in the dark, crocodiles, to be alone, having bad dreams, chameleons, tigers, lions, shots being fired in our neighbourhood, mommy and daddy fighting, baboons, elephants, gorillas and sharks. The extended FSSC-R was then administered to 646 middle childhood South African children residing in the Western Cape.

8.1.2 Findings with regard to the reliability analysis

Reliability analyses (conducted on the data obtained by the extended FSSC-R) and further item content inspection, resulted in the deletion of 23 items and thus the FSSC-SA now contains a total of 74 items (see Tables 4 & 5). The internal consistency of the FSSC-SA is α

= 0,97 which is in line with previous studies. The item ‘getting HIV’ was not deleted even though it displayed a poor item-total correlation due to it consistently being among the ten most common fears in previous studies. Two items (mystery movies and having my parents argue) were deleted since they represented the same content of fear that the items ‘scary movies’ and ‘mommy and daddy fighting’ did. The latter two items were retained because they displayed slightly better item-total correlation and since these items were derived from the semi-structured interviews, conveying fears in children’s own words. There were other items, which despite their similarity in content (going to bed in the dark, to walk alone at night, being alone in the dark, dark places and being alone), were retained. These items have in previous studies loaded fairly strongly onto the factor, Fear of the Unknown and thus do make an important contribution. Their suitability in the FSSC-SA should however, be further explored in future studies. As such it seems as if the FSSC-SA is a reliable instrument within the South African context.

8.1.3 Findings with regard to factor analysis

The validity of the FSSC-SA was examined by means of principal component analysis with varimax rotation with a scree plot and an eigenvalue greater than 1 criterion. This statistical approach was based on previous research and on the fact that the present study is explorative in nature. The suitability of varimax rotation has been discussed in previous research but it was decided that for comparative reasons a varimax rotation would be applied. Various factor solutions were explored with respect to their suitability, the interpretation of the factors and the amount of variance explained and a five-factor solution (Variance = 44,01) was found to be the best conceptual fit for the present study (see Tables 6 - 10). The five-factors were named: Factor I-Fear of Danger and Death (Eigenvalue=9,02; Variance = 12,19), Factor II-Fear of the Unknown (Eigenvalue = 7,87; Variance = 10,63), Factor III-Worries (Eigenvalue = 6,02; Variance = 8,14), Factor IV-Fear of Animals (Eigenvalue=5,33; Variance = 7,23) and Factor V-Situational Fears (Eigenvalue = 4,33; Variance = 5,85).

Factor I consists of items such as ‘not being able to breath’, ‘earthquakes’, ‘getting HIV’ and ‘shots being fired in our neighbourhood’. Items that loaded onto Factor II included ‘dark places’, ‘cemeteries’, ‘nightmares’ and ‘to be alone’. Factor III consists of items such as ‘lizards’, ‘the sight of blood’, ‘having to put on a recital’ and ‘taking a test’. Factor IV items included ‘gorillas’, ‘lions’ and ‘crocodiles’. The items that loaded onto Factor V are: high

places like mountains, elevators, sharp objects and being in a big crowd. Most of the factors are fairly similar to those found in previous research with the exception of Factor III. The items on Factor III seemed to not really have an overtly logical reason why they had been clustered together. Previous studies have similar findings. It was found that in general factor structures differed across research findings, even though the same instrument was used and thus caution is advocated when comparing factor structures among studies. Some items loaded strongly on more than one factor and were then allocated to the factor on which they loaded the strongest (see Table 8). This phenomenon was also found in previous studies. Further validation of the FSSC-SA is recommended.

8.1.4 Findings with regard to content of fear

The most feared item for the South African children was the fear of 'getting HIV' (see Table 12). This item is new and highlights the importance of standarising assessment instruments for the context in which they are used. The ten most common fears for the overall sample, as well as all the individual cultures contained a mixture of old and new items (see Tables 12-15). This indicates that certain fears can be generalised (Fonseca et al., 1994; Ollendick, 1983) but that other fears represent the idiosyncrasies of the individual culture and context. This statement is also supported by previous studies. Furthermore, the inclusion of the new items among the most fear eliciting items, indicates that these items reflect the societal norms, issues and fears of South African children.

8.1.5 Findings with regard to number and level of fear

The highest number (see Tables 24-26) and level of fear (see Tables 28-30) was experienced by the black South African children, followed by the coloured South African children and lastly, the white South African children. This trend of non-white children displaying higher levels of fear has been documented in previous studies (Burkhardt et al., 2003, Muris et al., 2002b). This may be ascribed to cultural values, semantics (Neal & Turner, 1991), parental rearing practices and socio-economic status (Muris et al., 2006).

Gender differences were statistically significant for the number (see Tables 24, 25, & 27) and level of fears (see Tables 28, 29, & 31) expressed across the overall sample as well as the individual cultures with girls consistently being more fearful than the boys. This trend has

been reported in previous studies as well (Angelino et al., 1956; Burkhardt et al., 200; Burnham, 1995; Burnham & Gullone, 1997; Gullone & King, 1992, 1993; Lapouse & Monk, 1959; Mellon et al., 2004; Ollendick, 1983; Pratt, 1945). Overall though, little clarity has ensued pertaining to gender differences. The finding that girls disclose more fears than boys is often described as a response to gender role expectations and or as a result of socialisation process. Girls may be more willing than boys, to acknowledge their fears than boys (Gullone, 1999).

8.1.6 Findings relating to the pattern of fear

The pattern of fear was fairly similar for all three cultural groups with the order being from Factor I (highest level of fear), Factor II, Factor III, Factor V and lastly Factor IV (lowest level of fear) (see Tables 32-34). Significant differences for all cultures were found for Factor II and III (see Table 35).

Gender differences were found on each factor with girls consistently expressing a higher intensity on each factor than the boys. The pattern of the factor structures is the same for boys and girls from Factor I through to IV, from highest to lowest fear intensity (see Tables 32, 33, 36 & 37).

8.2 Implications for the South African context

The present study tried to address the need for fear assessment instruments that are scientifically relevant to the South African context by standarising the FSSC-R. The FSSC-SA includes important contemporary fears not available on the FSSC-R and demonstrates good reliability and construct validity. Some of the new items were among the ten most common fears, suggesting that the new fears are relevant to the South African social and environmental conditions. Cultural differences are consistent with previous research (Burkhardt et al., 2003), demonstrating the FSSC-SA's sensitivity to cultural differences rendering it as a promising instrument for assessing fearfulness in children. It seems that the FSSC-SA, like its predecessors, holds promise for researchers interested in examining fears of children. The FSSC-SA offers mental health practitioners an assessment tool for examining middle childhood fears.

The FSSC-SA was adapted in an South African context and was administered to a representative sample of the Western Cape, South African children. The fact that the instrument was adapted for South African children from the black, coloured and white cultures may pose certain limitations on the generalizability of its use within other cultures. Previous research has, however, shown factorial variance of the FSSC-R across cultural groups and thus suggests that the FSSC-SA is likely to have valid and reliable applicability across, at least, closely related cultures. Further generalisation of the present results requires additional validation and further replication with larger samples as well as a broader age group.

A wealth of normative data was gained by the present study and can be added to the existing body of knowledge regarding middle childhood children's fears. A worrying aspect is the finding that it seems as if South African children generally display higher numbers and levels of fear in comparison to other countries. Thus it seems important that future studies further explore this phenomena by using clinical diagnostic interviews such as the Anxiety Disorders Interview Schedule (Silverman & Nelles, 1988) in order to determine the severity of fears in South African children with regard to phobias and other anxiety disorders. This would provide more insight into the matter and would also assist the development of preventative programmes.

8.3 Shortcomings of the present study and recommendations

Several shortcomings of the present study need to be acknowledged. Recommendations are made in line with these shortcomings as well as in more general terms.

- It is important that the validation process of the FSSC-SA be continued in further studies. This can include the correlation with other anxiety measures, in order to determine convergent and divergent validity.

- The reliability of the FSSC-SA should be further explored with aspects such as re-test reliability.

- No piloting procedures were used in the present study. Only semi-structured interviews were conducted in order to generate an item pool. Perhaps a pilot study with the aim of

revising the items and then to allow for re-administration would have resulted in fewer items that did not load saliently on a factor.

- Future studies should be done with a larger sample in order to address some shortcomings of the present study.

- The present study only included middle childhood children. Future studies should include adolescents as well, in order to obtain a clearer picture of childhood fears.

- Future work could also include determining the relationship between the FSSC-SA and other individual difference constructs such as depression and personality.

- The present study relied solely on self-reports which, can limit the information obtained. A more comprehensive data collection process is advocated.

- Socio-economic status and its effect on fear profiles need further exploration, as it seems to play an important role in the expression of fear.

- Since only three cultures were represented in the present study and not all cultures of South Africa were included, the generalisation of the findings is unclear. Further studies are needed to clarify this.

- A limitation of the study was the amount of variance explained by the accepted structure. Only 44,01% of the variance was accounted for by the 5-factor solution. This resulted in a great deal of variance being left unexplained. A larger sample and more comprehensive methods of data collection are recommended.

- Children can also be asked of their experiences with and the interpretation of the items. This may help to determine why different factor structures emerge across cultures and why unusual items load together.

- Future research could also examine the factor structures that are most suitable for males and females with respect to different age groups and cultural settings. This information can contribute to the already existing knowledge base of normal and abnormal fear

development in children.

8.4 A critical review of the study

The research was conducted with the primary aims of:

- developing a measuring instrument that is scientifically and socially relevant to the South African context. This entails the development of a fear instrument that will aid towards assessing the manifestation of fear and thereby contribute to better understanding of the expression of fears by children during middle childhood.

The secondary aim was:

- to determine the content, number, level and pattern of fear of a selected group of middle childhood South African children, living in the Western Cape, based on the results of the South African fear instrument.

8.4.1 Aspects of the study the researcher found challenging

- Adapting an instrument proved to be very challenging. The researcher felt that the whole process involved a learning curve with regard to terminology and initially found it difficult to obtain clear guidelines form previous research procedures. This was compensated by reading as much as possible regarding the topic and familiarising herself with the relevant terminology.

- The researcher was not able to converse in Xhosa and as such, this was a limitation. This was however, addressed by using a Psychology Master's student, who was fluent in Xhosa with previous experience in conducting semi-structured interviews. Audio-recordings were made of each participant's semi-structured interview. The researcher tried to verify transcriptions where possible but the possibility does exists that some of the finer nuances could be lost in the translation process.

- Logistical challenges were present, since the researcher was residing in Namibia when the study was conducted. This was, however, overcome by good planning and communication

with the relevant stakeholders as well as promoters.

8.4.2 Aspects of the study that added to its value

- A large amount of the normative data regarding childhood fears has been obtained by means of the FSSC-R, during previous research, on which the FSSC-SA is based. This provides the FSSC-SA with a good, firm foundation.

- The semi-structured interviews provided an enormous amount of information regarding childhood fears and proved to be an important contributing aspect to the present study.

- The fact that the FSSC-SA was administered in children's classrooms allowed the researcher to observe them in their natural setting and also gain insight regarding the community in which the children live. This provided a greater sense of understanding for the researcher regarding data interpretation.

- By attempting to provide mental health care practitioners in South Africa with a socially and scientifically relevant instrument, an important contribution is made to the South African society. Fears can now be assessed using an instrument that has relevance to the South African context. Furthermore, information obtained regarding content, number and level of fear, as well as pattern of fear for middle childhood children can contribute to the planning of preventative programmes.

- The findings have suggested that children's fears do reflect their understanding of the world and their place in it and as such, their voice needs to be heard in order to have a better understand of them but also to implement effective prevention programmes.

In conclusion, Dr Nkosazana Dlamini-Zuma (Department of Health, 1997) said: 'It is my sincere hope that this document (White Paper on Health) will inspire all of us to work towards the health of our nation and ensure a brighter future for our children. May this effort inspire all of us, rich or poor, urban or rural, to take individual and collective responsibility for our health' (p. 5). In line with the above, this study attempted to provide a fear assessment tool as well as normative information regarding children's fears, to ensure a better future for the children of South Africa.

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ADDENDUM A

DEPARTMENT OF EDUCATION; WESTERN CAPE: REQUEST FOR PERMISSION LETTER

Head: Education
Private Box X 9114
Cape Town
8 000

Dear Dr. Cornelissen

RE: PERMISSION TO CARRY OUT THESIS RESEARCH

I am a registered psychology doctoral student at the University of Stellenbosch and I am currently planning to conduct my dissertation on the following topic;

An assessment instrument for fear in middle childhood South African children.

The research will form part of a larger project to be conducted by the University of Stellenbosch regarding children's normal experiences of fear (Burkhardt, 2002, 2003; Burkhardt, Loxton, & Muris, 2003). Fears which are experienced during childhood are a natural phenomena (Elbedour, Shulman, & Kedem, 1997). The motivation of the proposed study is based on providing a measuring instrument that is scientifically and socially relevant for the South African context. This will also aid in a better understanding of the expression of fears by children during middle childhood where cognitive, social and self concept development are important milestones (Louw, Van Ede, & Ferns, 1998b), as well as to plan and implement more effective preventative programmes.

Should the parents or guardians give their consent, the child will be asked to complete a questionnaire regarding the fears, which they express. As such the participants are the learners themselves. The respective teachers will be asked to provide the necessary biographical information. The data obtained will be used to develop an assessment instrument for fear in middle childhood South African children based on the extensively researched 80-item Fear Survey Schedule for Children (FSSC-R), which was originally developed in the United States of America. In addition the content, number and level of fears will be investigated. It will also be investigated whether there are any differences in the content, number and level of expressed fears of the selected group of children.

I hereby request permission to conduct research at the primary schools in the Stellenbosch area during September 2004 (Phase 1) and January 2005 (Phase 2):

The following conditions will be met:

1. The principals/teachers/learners are under no obligation to assist in this investigation.
2. The principals/learners/schools should not in any way be identified from the results of the investigation.
3. All arrangements concerning this investigation will be done personally.
4. The conditions, as stated in 1-3 above, will be submitted unamended to the school principal where the intended research is to be conducted.
5. A brief summary and completed thesis will be provided to the director: Curriculum Management (Research Section).

Thank you for considering my application.

Regards

_____
Ms. Käthe Burkhardt
P.O. Box 40546
Ausspannplatz
Windhoek
Namibia

Tel: 09264-61-221347 (w)
221459 (w)
: 09264-81-293 1788 (c)
Fax: 09264-61- 221758 (w)

_____
Promoter: Dr. H. Loxton
Co-Promoter: Professor A. Kagee
Department of Psychology
University of Stellenbosch
Private Bag X1
Matieland
South Africa
7602

Tel: 021-8083417 (w)
Fax: 021-8083584 (w)

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ADDENDUM B

DEPARTMENT OF WESTERN CAPE: PERMISSION LETTER

Navrae
Enquiries
IMibuzo Dr RS Cornelissen

Telefoon
Telephone
IFoni (021) 467-2286

Faks
Fax
IFeksi (021) 425-7445

Verwysing
Reference
ISalathiso 20040827-0052

Wes-Kaap Onderwysdepartement
Western Cape Education Department
ISebe leMfundo leNtshona Koloni

Miss Irmgard Burkhardt
P.O. Box 40546
WINDHOEK
Namibia

Dear Miss I. Burkhardt

RESEARCH PROPOSAL: AN ASSESSMENT INSTRUMENT FOR FEAR IN MIDDLE CHILDHOOD SOUTH AFRICAN CHILDREN.

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **1st February 2005 to 23rd September 2005.**
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December 2004).
7. Should you wish to extend the period of your survey, please contact Dr R. Cornelissen at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the Principal where the intended research is to be conducted.
9. Your research will be limited to the following schools: [redacted]
10. A brief summary of the content, findings and recommendations is provided to the Director: Education Research.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:
    The Director: Education Research
    Western Cape Education Department
    Private Bag X9114
    CAPE TOWN
    8000

We wish you success in your research.

Kind regards.

for: **HEAD: EDUCATION**
DATE: 19th January 2005

ADDENDUM C

PRIMARY SCHOOLS: INFORMATION LETTER

PRIMARY SCHOOLS

I would like to use this opportunity to once again express my appreciation for granting permission to conduct my previous research project during 2000 at your school. An article regarding this research was published in an international journal and is attached. The results indicated the need for further research.

At the University of Stellenbosch, research is currently being undertaken to the content of **primary school children's normal experiences of fear**. Fear is a normal part of children's experiences of life. That which children fear is generally influenced by their environment and changes as they develop.

The information gathered from the research will be aimed at a better understanding of children who fall into the 8-13 age group. The aim is to utilize this information for the development of a fear measuring instrument applicable to the South African context and also to the benefit of other children in South Africa by planning and implementing effective preventive programmes.

Should consent be given, semi-structured interviews will be conducted with a few children (**Phase 1**). This information will then be incorporated into the existing fear questionnaire. During the **second phase** a larger group of children will be asked to complete this extended fear questionnaire. Teachers will asked to supply the relevant biographical information. The sessions would take place during school hours on the school premises.

To this end, this letter is a friendly, enthusiastic request to you as headmaster of children who fall within the targeted age group of this study, to allow them to participate in the research project. Permission by the Western Cape Education Department has been granted. A copy of this letter is attached. **Complete anonymity is assured and no information that will be used for research purposes will be related directly back to the school or the children in a personal capacity.** In reporting the research results, the children and yourself are referred to only by such aspects such as gender, age and language of testing.

It would be preferable if you do not discuss anything regarding the research with the children prior to the research date. Should you be interested, arrangements can be made to discuss the findings of the group during a general feedback session.

It will be highly appreciated if arrangements with regard to the **first phase** during the first term of 2005 could be made. This entails semi-structured interviews with approximately 10 children between the ages of 8 and 13 years, lasting 30 minutes each.

Initial arrangements will be made telephonically as I, the researcher, am living in Namibia.

Your assistance in the above regard will be highly appreciated and it is hoped that your participation in this research will be of benefit to both yourself and the children.

Should you at any time wish to contact me, I may be reached at ikeburkhardt@hotmail.com.

I thank you in advance for your co-operation.

Yours sincerely

Ms. Käthe Burkhardt
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ADDENDUM D

PARENTS/GUARDIANS: INFORMATION LETTER

Dear Parent/Guardian

At the University of Stellenbosch, research is currently being undertaken to the content of primary school children's normal experiences of fear. Fear is a normal part of children's experience of life. That which children fear is generally influenced by their environment and changes as they develop.

The information gathered from the research will be aimed at a better understanding of children who fall into the 8-13 age group. The aim is to utilize this information for the development of a fear measuring instrument applicable to the South African context and also to the benefit of other children in South Africa, by planning and implementing effective preventive programmes.

To this end, this letter is a friendly, enthusiastic request to you as parents of a child who falls within the targeted age group of this study, to allow your child to participate in the research project. **Complete anonimity is assured and no information that will be used for research purposes will be able to be related directly back to your child in his/her personal capacity**. In reporting the research results, the children are referred to only by aspects such as gender, age and culture.

Should you give consent your child will be asked to complete a child friendly test. The whole session would take place during school hours on the school premises and should not exceed two hours.

Arrangements for the specific day will be made with

Ms……. Of…….. primary school.

It would be preferable if you do not discuss anything regarding the research with your child prior to the research discussion. Should you be interested, arrangements can be made to discuss the findings of the group during a general feedback session.

Yours sincerely

Ms. Käthe Burkhardt
P.O. Box 40546
Ausspannplatz
Windhoek
Namibia

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Co-Promoter: Professor A. Kagee
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ADDENDUM E

MOTIVATIONAL TALK FORMAT

(adapted from Loxton, 2004)

1. Hello my name is ……. and who are you ……?

2. How old are you and in which grade?

3. What are you busy with in class at the moment?

4. I enjoy talking to children and would like to talk to you a bit today.

5. I will write while we talk and this machine (interviewer points to the tape recorder) will be on. I want to ensure that I will remember everything that we talk about today and that is the reason why I will be making notes and the tape recorder will be on.

6. It is really important for me to inform you that everything you will tell me today will only stay between you and me. I am not going to tell anybody what you tell me today.

7. (At the end of the interview). Would you like to listen to your voice on the tape recorder?

ADDENDUM F

SEMI-STRUCTURED INTERVIEW FORMAT

(adapted from Loxton 2004)

1. All of us are afraid or scared sometimes.

2. Do you know what it means to be afraid of something?

3. What are the things that you are afraid of?

4. How afraid are you of them? Not at all……. A bit …… A lot?

5. Is there anything else that you are afraid of?

6. How afraid are you of them? Not at all……. A bit …… A lot?

Questions 5 and 6 will be repeated until the child informs the researcher that there is nothing else that the child is afraid of.

7. What are the children in your class afraid of?

8. What are your family members afraid of?

ADDENDUM G

RESEARCH ASSISTANT'S GUIDELINES

Dear Research Assistant

Hereby the schedule and guidelines for the assessments with respect to the research project:

An assessment instrument for fear in middle childhood South African children.

Monday 29 August 2005:
Tuesday 30 August 2005:
Thursday 1 September 2005:
Friday 2 September 2005:

The testing will take approximately 2 hours and will be held on the school premises in their respective classes.

We will meet each other at the respective schools at 8:00 except for Primary School, where we will meet at 11:00 in front of the Psychology Department to drive in a convoy. If somebody needs transport arrangements can be made.

The children will first be asked to complete the Biographical Questionnaire. Once everybody has completed the Biographical Questionnaire then the instructions for the extended fear questionnaire will be read out aloud and explained to the children as provided on the extended fear questionnaire. Once everybody has understood the questions the research assistant will read each item out aloud and ask the children to indicate how much they fear the respective item. This is of importance since the researcher became aware, during previous research, that not all learners are literate.

Confidentiality needs to be explained in child-friendly terms.

Informed assent needs to be obtained as set out on the extended fear questionnaire.

There is no time limit and it is important to adhere to standard test instructions.

Independent answering needs to be advocated. Walk around to ensure this and encourage each participant to complete the questionnaire as honestly as possible.

Observe whether the participants are completing the questionnaire correctly and not skipping/leaving out items. Questionnaires not completed correctly will have to be discarded and thus rendered useless.

Motivate the participants by emphasising the important role they are playing.

Be aware of the physical surroundings and try to create optimal physical conditions (e.g adequate lighting and sufficient room to be comfortable while answering).

I look forward to meeting you and hope this will be a valuable learning experience for you. I thank you in advance for your co-operation, without your help I would not be able to attempt this stage.

Kind regards

Käthe Burkhardt

ADDENDUM H

BIOGRAPHICAL QUESTIONNAIRE

All the information will be treated **confidentially** and be used for research purposes alone. The identity of the learner will also not be linked to the results.

Name:
…….
School:
…….
Grade:
…….

1. What is the learner's name and surname?
……

2. Age
…….
and birth date?
…….

3. Gender? boy girl

4. Are the parents
married
living together
single
seperated
divorced

5. Does the learner live with
both parents
mother
father
other, specify

6. Does the learner have brothers? yes no

If yes, how many
……

and how old ?
……

Does the learner have sisters? yes no

If yes, how many
……

and how old ?
……

7. What language does the learner speak?
……

What language does the mother speak ?
…….....

What language does the father speak?
…...…….....

What language does the caretaker speak?
…….....

8. Does the father work? yes no

If yes, what kind of work?

……....

Does the mother work? yes no

If yes, what kind of work?

…..……

Does the caretaker work? yes no

If yes, what kind of work?

……..

9. How many people are living in the house?

…….....

10. Does the learner go to aftercare? yes no

If no, who looks after the learner?

……

11. Does the learner go to church? yes no

If yes, to which church does the learner belong?

…….....

12. Does the learner stay in a
own flat
rented flat
room
own brickhouse
rented house
informal housing

ADDENDUM I

EMERGING THEMES, BASED ON THE SEMI-STRUCTURED INTERVIEWS

Codes	Total occurrence
A thief breaking into our house	2
Afraid of the ocean	1
Animals fighting	1
Baboons	2
Bears	1
Bees	1
Being a drop-out	1
Being hurt with a knife-violence	1
Being robbed	1
Being run over by a train-accidents	1
Being stalked	1
Cats	1
Chameleons	3
Children hurting me	1
Crabs	1
Crocodiles	4
Darkness	3
Death	4
Detention at school	1
Devil	1
Dogs	4
Drowning	1
Elephants	3
Father hitting his girlfriend	1
Fear of heights	2
Friends being hurt	1
Ghosts	2
Gorillas	2
Guns	2
Having bad dreams	2
Hurtful comments or actions by others	1
Iguanas	1
Illness-getting HIV	1
Illness-to be sick	1
Kidnapping	1
Large crowds of people	1
Leopards	1
Lions	10
Lizards	2

Codes	Total occurrence
Locusts	2
Loud sirens at night	1
Mice	1
Mommy and daddy fighting	2
Monkeys	1
Mother dying	1
Murderers	1
Nightmares	3
People staring at me	1
Porcupines	1
Rapists	1
Rooicats	1
Scared father will commit a crime	1
Scared of heights	2
Scared of scholastic failure	1
Scared something bad will happened to a family member	1
Scared something bad will happen to father	1
Scared to disappoint	1
Scared to hurt self	1
Scared to talk to boys	1
Scared will forget homework	1
Scorpions	1
Sharks	3
Shots being fired in our neighbourhood	2
Siblings scaring each other	1
Snails	1
Snakes	17
Someone will rape me	1
Spiders	4
Teacher	1
The possibility of being in a car accident	3
Threats from mommy	1
Thugs	1
Thunderstorms	2
Tigers	2
To be a policeman	1
To be alone	1
To be alone in the dark	3
To be attacked	1
To be hurt by others	1
To be lost	2
To be negatively influenced by others	1
To be rejected by parents	1
To be reprimanded	1
To be spoilt	1

Codes	Total occurrence
To become a tsotsi	1
To drive a car	1
To lose family	1
To lose friendships	1
To walk alone at night	4
Tstosi	1
Violence	1
Watching scary movies	4
Weird dreams	1
Witchcraft	1
Zombie	1